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<p>(54) Title: METHODS FOR GENERATING BROADLY NEUTRALIZING ANTI-HIV ANTIBODIES AND ANTIGENS CAPABLE OF ELICITING SAME (57) Abstract This invention features methods for identifying molecules which will act as antigens capable of eliciting broadly neutralizing anti-HIV antibodies, and methods for producing recombinant, broadly neutralizing anti-HIV antibodies.</p>		

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METHODS FOR GENERATING BROADLY NEUTRALIZING ANTI-HIV
ANTIBODIES AND ANTIGENS CAPABLE OF ELICITING SAME

Background of the invention

5 Human Immunodeficiency Virus (HIV), the etiologic agent of Acquired Immunodeficiency Syndrome (AIDS) and related disorders, is a retrovirus which infects certain immune system cells, including T4 lymphocytes and CD4⁺ cells of the monocyte/macrophage lineage. In the absence
10 of effective treatment, the mortality rate for AIDS patients approaches 100% (Fauci, *Science* 239:617, 1988).

Well over 100 HIV variants have been identified. The amino acid sequence of the HIV envelope glycoprotein gp120 is particularly variable; its amino acid sequence
15 can vary by 20-25% from one strain to the next. In addition to strain to strain variability, there is a more subtle variation in genome sequence probably caused by the high error rate of reverse transcriptase. Consequently any particular viral isolate consists of a
20 cohort of quasi-species. Further, the diversity and number of quasi-species apparently differs from one HIV variant to another. There is substantial evidence that these quasi-species evolve in vivo. For example, successive viral isolates from an infected individual
25 reveal substantial temporal fluctuations in the proportion of various quasi-species (Meyehans, *Cell* 58:901, 1989). Infected individuals initially mount a humoral and cellular immune response against HIV, and there is reason to believe that an infected individual's
30 immune response may actually encourage viral spread and the emergence of more resistant variants (McCune et al., *Cell* 64:351, 1991). This extreme heterogeneity makes it difficult to generate vaccines or antibodies that will be effective against a wide range of HIV strains.
35 Antibodies that have neutralizing activity against the HIV virus have been proposed for treatment of HIV

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infection. The primary targets for neutralizing anti-HIV antibodies are within gp120, the envelope glycoprotein. The loop structure within the third variable (V3) domain of gp120 is believed to be the principal neutralization domain (PND) of gp120. Because of the extreme sequence heterogeneity of gp120 among HIV isolates, the V3 loop elicits predominately strain-specific neutralizing antibodies. Nevertheless anti-V3 loop antibodies that recognize short, highly conserved sub-sequences of the loop and are capable of neutralizing a broad range of HIV isolates have been identified (Scott et al., PCT Publication No. WO 90/15078; Javaherian et al., *Science* 250:1590, 1990). Such antibodies are referred to as broadly neutralizing antibodies.

Given the importance of attacking a wide range of HIV strains, it would be very desirable to have the ability to generate a variety of broadly neutralizing antibodies and variety of antigens capable of eliciting such antibodies.

Summary of the Invention

In general, the invention features methods for identifying molecules, preferably organic molecules, which will act as antigens capable of binding to or eliciting broadly neutralizing anti-HIV antibodies. The invention also features methods for designing and producing recombinant, broadly neutralizing anti-HIV antibodies. Both methods rely on the use of precise structural information derived from x-ray crystallographic studies of the Fab portion two different broadly neutralizing anti-HIV antibodies, 58.2 and 59.1, each complexed with a peptide antigen, and described herein.

Specifically, these data permit the identification of the atoms in each antigen that are important for antigen-antibody binding. More importantly, the data

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described herein permit one to describe the precise three-dimensional arrangement of these important contact atoms. Other molecules which include atoms having a three-dimensional arrangement similar to some or all of these contact atoms are likely to be capable of binding to and eliciting broadly neutralizing anti-HIV antibodies. The use of the structural data presented herein permits the identification of such structurally similar molecules using any of a number of commercially available computer programs.

The data presented herein also permits the identification of the atoms in antibodies 58.2 and 59.1 that are important for antigen binding. This information permits one to generate broadly neutralizing recombinant anti-HIV antibodies by engineering a suitable antibody to include these important contact atoms.

Accordingly, the invention features a method for identifying molecules capable of binding to or eliciting anti-HIV antibodies (preferably broadly neutralizing antibodies), involving (1) selecting an anti-HIV antibody-contacting pharmacophore within the peptide antigen RP142; (2) comparing the pharmacophore to three-dimensional molecular structures in a structural database using a computer program; (3) identifying candidate molecules within the database predicted to include the pharmacophore; and (4) screen candidate molecules to identify one or more capable of binding to or eliciting HIV antibodies (preferably broadly neutralizing antibodies).

The same method can be used employing antibody-contacting pharmacophores within the cyclic peptide AS.

In another embodiment, the invention features a method for identifying molecules capable of binding to or eliciting anti-HIV antibodies (preferably broadly

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neutralizing antibodies), involving: (1) selecting a region of three to seven contiguous amino acids within the central domain of the peptide antigen RP152; (2) comparing the atomic coordinates with the backbone of the
5 selected region with the atomic coordinates of the backbones of three to seven amino acid polypeptide sequences in a protein structure database using a computer program; (3) identifying a candidate three to seven amino acid polypeptide sequence present in the
10 database in which the root mean square difference between the backbone atomic coordinates of the candidate peptide and the backbone atomic coordinates of the selected region of RP142 is less than about 0.5 Å; (4) in a model, sequentially replacing each amino acid side chain of the
15 candidate peptide with an alternative amino acid side chain to create a set of substitute selected peptides; and (5) identifying preferred substituted selected peptides present in the set of substituted peptides so that the root mean square difference between all of the
20 atomic coordinates of each of the preferred substitute selected peptide and all atomic coordinates of the central domain of RP142 is less than about 0.3 Å. The preferred peptides are then screened as described herein.

In a preferred embodiment of the last-recited
25 process, step (5) involves, in a model, sequentially replacing each amino acid side chain of the candidate peptide with an alternative amino acid side chain, and then rotating each replaced amino acid side chain of each candidate peptide on its alpha covalent bond to identify
30 a minimum energy position.

In another aspect, the invention features a method for identifying molecules capable of eliciting anti-HIV antibodies (preferably broadly neutralizing antibodies), involving (1) selecting a region of three to seven
35 contiguous amino acids within cyclic peptide AS; (2)

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comparing the atomic coordinates of the backbone of the selected region with the atomic coordinates of the backbones of three to seven amino acid polypeptide sequences in a protein structure database using a
5 computer program; (3) identifying a candidate three to seven amino acid polypeptide sequence present in the database wherein the root mean square difference between the backbone atomic coordinates of the candidate peptide and the backbone atomic coordinates of the selected
10 region of cyclic peptide AS is less than about 0.5 Å; (4) in a model, sequentially replacing each amino acid side chain of the candidate peptide with an alternative amino acid side chain to create a set of substituted selected peptides; and (5) identifying preferred substituted
15 selected peptides present in the set of substituted peptides wherein the root mean square difference between all the atomic coordinates of each preferred substituted selected peptide and all atomic coordinates of the cyclic peptide AS is less than about 0.3 Å. Candidates are
20 screened as described herein.

In a preferred embodiment, step (5) of the just mentioned aspect of the invention involves the steps of:
(a) in a model, sequentially replacing each amino acid side chain of the candidate peptide with an alternative
25 amino acid side; and (b) rotating each replaced amino acid side chain of each candidate peptide on its alpha carbon bond to identify a minimum energy position.

In another aspect, the invention features a recombinant, broadly neutralizing anti-HIV antibody,
30 composed of a recombinant kappa light chain framework subgroup IV and human heavy chain framework subgroup II, wherein at least five CDR amino acids selected from the group consisting of Kabat light chain amino acids 27D, 92, 93, 94, 96 and Kabat heavy chain amino acids 33, 50

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52, 53, 56, 57, 95 and 100I are identical to the corresponding 58.2 contact amino acids.

In a further aspect, the invention features a recombinant broadly neutralizing anti-HIV antibody,
5 composed of a recombinant kappa light chain framework subgroup IV and human heavy chain framework subgroup II, wherein at least five CDR amino acids selected from the group consisting of Kabat light chain amino acids 27D, 28, 91, 92, 93, 94, and Kabat heavy chain amino acids 33,
10 35, 50, 52, 53, 54, 97 and 98 are identical to the corresponding 59.1 contact amino acids.

Other features and advantages of the invention will be apparent from the following description of the preferred embodiments and from the claims.

15

Detailed Description

Described herein is the precise molecular structure assumed by RP142, an antigenic peptide, when it is bound to the Fab of antibody 59.1, a broadly neutralizing anti-HIV antibody, and the precise molecular
20 structure assumed by a second peptide, cyclic peptide AS, when it is bound to the Fab of antibody 58.2, a second broadly neutralizing antibody. The structures of these peptides are unexpected based on sequence-based structural predictions. Importantly, the atomic
25 structure of the antigen-antibody complexes are described, and the atoms important for antigen-antibody binding are identified. This information permits one to improve identified antigens so that they elicit a stronger immune response, identify other molecules
30 capable of eliciting broadly neutralizing antibodies, improve existing broadly neutralizing antibodies, and design new broadly neutralizing antibodies.

For any given antigen-antibody interaction it is desirable to generate variant antigens which bind the
35 antibody with higher affinity, since such variant

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antigens are expected to be more antigenic. Likewise it is considered desirable to generate tighter binding antibodies, since such antibodies are thought to be more effective (e.g. have increased HIV neutralization activity). Rational design of new antigens and antibodies is dependent on accurate structural information which can be used for modeling antigen-antibody interaction. Once an antigen-antibody structure has been modeled, one can predict what molecular changes are consistent with improved (or unchanged) binding.

The flexibility of peptides makes it extraordinarily difficult to predict the preferred structure of a peptide composed of more than three or four amino acids. It is even more difficult to predict the structure assumed by a bioactive peptide when it binds to its receptor, since receptor-peptide interactions are thought to significantly influence peptide structure. By deducing the structures assumed by two different antigens when bound to two different broadly neutralizing antibodies we have provided important structural information which will permit the design of structurally related peptide and non-peptide antigens which are capable of eliciting broadly neutralizing anti-HIV antibodies.

Recently developed computer-based methods which permit the identification of compounds with a desired molecular structure are currently being used to identify compounds whose structure is similar all or a part of a compound of interest. These computer-based methods fall into two broad classes: database methods and *de novo* design methods. In database methods the compound of interest is compared to all compounds present in a database of chemical structures and compounds whose structure is in some way similar to the compound of interest are identified. The structures in the database

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are based on either experimental data, generated by NMR or x-ray crystallography, or modeled three-dimensional structures based on two-dimensional data. In *de novo* design methods models of compounds whose structure is in some way similar to the compound of interest are generated by a computer program using information derived from known structures and/or theoretical rules.

The success of both database and *de novo* methods in identifying compounds with activities similar to the compound of interest depends on the identification of the functionally relevant portion of the compound of interest. For drugs, the functionally relevant portion is referred to as a pharmacophore. A pharmacophore then is an arrangement of structural features and functional groups important for biological activity. Similarly, one can identify one or more pharmacophores for a given antigen. In this case the pharmacophore is a group of atoms that play an important role in antibody binding (and therefore elicitation of antibodies).

The data provided herein concerning the structures of two antigen-antibody complexes permits the identification of pharmacophores important for the elicitation of broadly neutralizing antibodies and removes the barrier to identifying other molecules capable of eliciting broadly neutralizing antibodies.

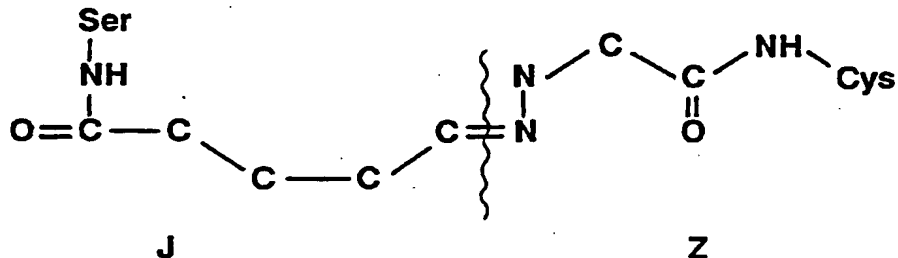
Programs suitable for generating predicted three-dimensional structures from two-dimensional data include: Concord (Tripos Associates, St. Louis, MO), 3-D Builder (Chemical Design Ltd., Oxford, U.K.), Catalyst (Bio-CAD Corp., Mountain View, CA), Daylight (Abbott Laboratories, Abbott Park, IL). Programs suitable for searching three-dimensional databases to identify molecules bearing a desired pharmacophore include: MACCS-3D and ISIS/3D (Molecular Design Ltd., San Leandro, CA), ChemDBS-3D (Chemical Design Ltd., Oxford, U.K.), Sybyl/3DB Unity

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- (Tripos Associates, St. Louis. MO). Programs suitable for pharmacophore selection and design include: DISCO (Abbott Laboratories, Abbott Park, IL), Catalyst (Bio-CAD Corp., Mountain View, CA), and ChemDBS-3D (Chemical Design Ltd., Oxford, U.K.). Databases of chemical structures are available from Cambridge Crystallographic Data Centre (Cambridge, U.K.) and Chemical Abstracts Service (Columbus, OH). De novo design programs include Ludi (Biosym Technologies Inc., San Diego, CA) and Aladdin (Daylight Chemical Information Systems, Irvine CA).

Structural Data

- The coordinates for antibody 58.2 bound to peptide AS are presented in Appendix A in standard Brookhaven database format; Peptide AS is a cyclic peptide having the sequence JSIGPGRAFGZC where J and Z are connected by a hydrazone linkage and are represented by:



- The light chain atoms are listed first starting with the amino terminal Asp (amino acid 1001) and ending with the carboxyl terminal Glu (amino acid 1215). The heavy chain atoms are then listed beginning with the amino terminal Asp (amino acid 2001) and ending with the carboxyl terminal Arg (amino acid 2226). The peptide atoms are listed next beginning with Gly (amino acid 3002) and ending with Gly (amino acid 3012).

The coordinates for antibody 59.1 bound to peptide RP142 (HIGPGRAFYT) are presented in Appendix B in

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standard Brookhaven database format. The light chain atoms are listed first starting with the amino terminal Asp (amino acid 1) and ending with the carboxyl terminal Arg (amino acid 215). The heavy chain atoms are then
5 listed beginning with the amino terminal Gln (amino acid 1001) and ending with the carboxyl terminal Thr (amino acid 1221). The peptide atoms are listed next beginning with His (amino acid 2002) and ending with Thr (amino acid 2011).

10 The contact data for antibody 58.2 and the AS peptide are presented in Table 1 in standard Brookhaven database notation.

 The contact data for antibody 59.1 and RP142 peptide are presented in Table 2 in standard Brookhaven
15 database notation. Thus the first column indicates the bond type (van der Waals, hydrogen bond or short hydrogen bond). The second column indicates the antibody atom involved. The amino acid are indicated first by their single letter code where the prefix "1" indicates the
20 light chain and the prefix "2" indicates the heavy chain. The amino acid number (according to the numbering scheme above) is indicated next followed by the identification of the atom. The third column indicates the peptide amino acid involved by its single letter code (with the
25 prefix "3" followed in the next column by the amino acid number (according to the numbering scheme above) followed by the identification of the atom involved. The last column indicates the bond length in angstroms. Thus, for the first contact listed, there is a van der Waals
30 interaction between the gamma oxygen of serine 31 of the light chain and the alpha carbon of glycine 4 of the peptide, and the bond is 3.45Å long.

58.2 Structure

 The data presented in Appendix A for antibody 59.1
35 bound to cyclic peptide AS show that the peptide adopts a

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relatively flat conformation. The GPGR sequence adopts a type I turn conformation, and additional turns are evident. The peptide is seen to lie flat in the antibody combining site with the Arg side chain buried deeply in the binding pocket. Light chain CDRs L1 and L3 are near the IGPR sequence in the peptide, making several hydrophobic contacts. The Phe residue of the peptide is only in contact with CDR H2, and in particular is stacked with the imidazole ring of His-53. CDRs H1 and H3 are in contact with the ends of the peptide. The buried Arg side chain is contacted by several residues including Asp-98 and Leu-100 of the light chain and Glu-99, Tyr-33, and His-36 of the heavy chain. There are thus two positive and two negative charges in the binding pocket when the peptide is bound. This structure is consistent with immunological data which suggest that the epitope for this antibody is HIGPRAF, in which many different amino acids are tolerated at the underlined positions. The specificity for the Phe residue may be eliminated by mutating CDR H2 and the specificity for the His residue may be eliminated by mutating CDR H3.

Table 1 lists the contacts between cyclic peptide AS and antibody 58.2. Any subset of at least five and preferably at least seven contacting atoms, up to 10-15 atoms, can constitute a pharmacophore which can be used to identify structurally related compounds using any of the modeling programs listed herein or any similar structure modeling program. By a contact between atoms on the antibody and antigen is meant a hydrogen bond or a Van der Waals interaction; only contacting atoms pairs are listed in Table 2.

Once one or more suitable compounds have been identified, their structures can be modeled and docked with a computer model of antibody 58.2 (or 59.1) to look for the presence of unwanted repulsive interactions or

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distortions. Molecular mechanics can then be used to calculate and minimize conformational energy and maximize attractive interactions.

59.1 Structure

5 The data presented in Appendix B for antibody 58.2 bound to peptide RP142 show that the peptide adopts a relatively flat conformation. Only the IGPGRAFY sequence of RP142 is visible in the structure; presumably because the rest of the peptide is floppy. While this peptide,
10 like the cyclic AS peptide, adopts several turns after the GPGR sequence, its backbone conformation differs from that of the cyclic AS peptide. The Arg side chain is buried, making contacts with Asp-98 and Asn-95 of the light chain and His-102 of the heavy chain, as well as
15 the CDR L3 backbone. There is a unusual disulfide linkage between Cys-35 of CDR H1 and Cys-54 of CDR H2. This linkage is in close contact with the Phe side chain of the peptide.

Immunochemical studies suggest that antibody 59.1
20 recognizes the sequence GPGRF. This is consistent with the present structural data. The data suggest an explanation for the fact that 59.1 binds the HIV-III_B sequence more strongly than the HIV-MN sequence. In HIV-III_B a Arg replaces the Ile of HIV-MN and it appears the
25 positively charged Arg side chain would be in close contact with Glu-97 of CDR L3 providing an electrostatic contact not present in a complex between 59.1 and an HIV-MN peptide.

Table 2 lists the contacts between RP142 and
30 antibody 59.1. Any subset of at least five and preferably at least seven atoms can constitute a pharmacophore which can be used to identify structurally related compounds using any of the modeling programs listed herein or any similar structure modeling program.

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Once one or more suitable compounds have been identified, their structures can be modeled and docked with a computer model of antibody 59.1 (or 58.2) to look for the presence of unwanted repulsive interactions or distortions. Molecular mechanics can then be used to calculate and minimize conformational energy and maximize attractive interactions.

Generation and Screening of Broadly Neutralizing Antibodies

Novel prospective antigens identified using the methods described herein can be used to generate broadly neutralizing anti-HIV antibodies using standard techniques. Described below are methods for generating antibodies using the novel antigens and screening the antibodies so produced to identify those with particularly significant broadly neutralizing activity. Methods for preparing and analyzing antibodies directed towards the V3 loop of a particular HIV-1 isolates (HIV-MN or an HIV-MN viral variant), are also described in U.S. Application No. 07/665,306, filed March 6, 1991 and in PCT Publication No. WO 91/15078, assigned to the same assignee and hereby incorporated by reference.

Molecules to be used as immunogens can be either unconjugated or conjugated to an immunogenic carrier, e.g., keyhole limpet hemocyanin (KLH) or ovalbumin, using succinyl maleimidomethyl cyclohexanycarboxylate (SMCC) as a conjugation agent using standard techniques. The molecules can be prepared for immunization by emulsification in complete Freund's adjuvant or other similar methods according to standard techniques.

Antibodies may be prepared by intraperitoneal immunization of mouse strains (e.g., Balb/c, C57BL/6, A.SW, B10.BR, or B10.A, Jackson Labs., Bar Harbor, ME). Immunized mice can be given booster immunizations of the immunogen, either in an emulsification of incomplete Freund's adjuvant or in soluble form (e.g., two to three

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times at two to four week intervals) following the initial immunization. Mice were bled and the sera assayed for the presence of antibodies reactive with the immunogen or RP142. Mice showing a strong serological
5 response are boosted, and (3-5 days later) spleen cells from these mice are fused with, for example, NS-1 (American Type Culture Collection, Rockville, MD, Accession No. TIB18), SP2-0 (ATCC No. CRL8287, CRL8006), or P3.X63.AG8.653 myeloma cells incapable of secreting
10 both heavy and light immunoglobulin chains (Kearney et al., *J. Immunol.* 123:1548, 1979) by standard procedures based on the method of Kohler and Milstein, (*Nature* 256:495, 1975).

Supernatants from hybridomas which appeared 6-21
15 days after fusion are screened for production of antibodies by an ELISA screening assay using the immunizing antigen or RP142 using standard techniques.

For example, if RP142 is used in the screening, each well of a 96-well Costar flat-bottom microtiter
20 plate is coated with the peptide by placing a 50 μ l aliquot of a PBS solution containing the peptide at a final concentration of 0.1-10 μ g/ml in each well. The peptide solution is then aspirated and replaced with PBS + 0.5% BSA. Following incubation, the wells are
25 aspirated, washed, and 50 μ l of hybridoma supernatant is added. Following incubation, the wells are washed 3 times with PBS, and then incubated with 50 μ l of an appropriate dilution of goat anti-mouse immunoglobulin conjugated with horseradish peroxidase (HRP, Zymed
30 Laboratories, San Francisco, CA). The wells are washed again 3 times with PBS and 50 μ l of 1mM ABTS (2,2 azino-bis (3-ethylbenzthiazoline-6-sulfonic acid) in 0.1M Na-Citrate, pH 4.2, to which a 1:1000 dilution of 30% H₂O₂ had been added), the substrate for HRP, is added to

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detect bound antibody. HRP activity is monitored by measuring the absorbance at 410nm.

A peptide titration assay can be used as an initial screen to predict if a given anti-V3 loop antibody will have strong neutralization activity. In this assay, the antibody is tested for its ability to prevent syncytia formation among gp120 expressing CD4+ cells in the presence of competitor peptide whose sequence is derived from a V3 loop sequence. This assay can be used to test for potential neutralization activity of any anti-V3 loop antibody towards any HIV isolate by using a peptide derived from the V3 loop from the HIV isolate of interest as the competitor.

Syncytia formation is measured in the presence of an anti-V3 monoclonal antibody mixed with one or more test peptides representing V3 loop sequences of a variety of HIV isolates.

In the peptide titration assay, the test peptide, at a series of concentrations ranging from 10 μ M to 0.01 μ M, is added to anti-V3 loop antibody (at 5 times the concentration required for the 90% endpoint in an Std. SN assay, described below), incubated for 30' at 37° and then added to CEM-ss CD4+ cells expressing HIV-MN gp120. These cells express gp120 because they are infected with a recombinant vaccinia virus that encodes the HIV-MN env gene.

The HIV gp120 envelope protein produced and presented on the surface of these cells enables them to bind to the CD4 receptor on other cells, resulting in cell fusion and the formation of syncytia. Antibodies that bind to the V3 loop of the gp120-expressing cells (anti-V3 loop antibodies) can inhibit syncytia formation. If the test peptide competes with the gp120 epitope recognized by the antibody for binding with the anti-V3 loop antibody, syncytia formation occurs. Conversely, if

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the test peptide does not compete with the cell surface epitope recognized by the antibody for binding with the anti-V3 loop antibody, syncytia formation in the presence of peptide is inhibited relative to syncytia formation in the absence of the peptide.

Construction of a recombinant vaccinia virus capable of expressing the full-length HIV envelope gene from a vaccinia virus promoter is described in EP Publication No. 0 243 029, hereby incorporated by reference. The recombinant vector pSC25, containing the HIV env gene and the lacZ gene of *E. coli* expressed from a second vaccinia virus promoter, and flanked by vaccinia viral sequences which together encode thymidine kinase (TK), was used to produce the recombinant virus.

A recombinant vector that contains DNA encoding an envelope gene having the specificity of the HIV-MN variant was prepared by removing a 570 bp *Bgl*III fragment (encoding 180 amino acids) from the HIV-III_B env gene which spans the region of the VS loop in pSC25, and replacing it with the analogous *Bgl*III fragment from the HIV-MN env gene. The resulting plasmid, pSCR2502, contained a hybrid envelope gene which encoded an envelope protein having the principal neutralizing domain of the MN virus and the remainder of the env gene sequence from the HIV-III_B envelope.

A smaller region of the HIV-MN gp160 protein can be used in place of the 180 amino acid replacement just described; e.g., DNA encoding the 36 amino acid V3 loop from any HIV strain can be inserted into the envelope-encoding DNA in place of the corresponding III_B DNA sequence. Alternatively, a recombinant could be used which contains the complete HIV-MN env gene. Multiple HIV envelope expressing strains are useful for assessing the specificity of an antibody.

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The recombinant vector pSCR2502 was transfected into CV-1 host cells that had been pre-infected with vaccinia virus containing an intact TK gene. The HIV envelope gene was integrated into the viral DNA by homologous recombination between the TK sequences on the vector and the TK sequences within the viral genome. Recombinants containing the HIV envelope gene were selected by infection of TK⁻ cells and plating on media containing bromodeoxyuridine (BUdR) and X-gal. BUdR is toxic to TK⁺ cells and thus selects for TK⁻ recombinants; X-gal is a chromogenic substrate cleaved by the product of the lacZ gene which results in the production of blue plaques where the lacZ gene is expressed and further identifies the recombinant virus which also contains the HIV-env gene.

Two biological assays, the standard serial neutralization assay (Std. SN) and the expanded serial neutralization assay (Ex. SN), can be used to as a more refined measurement HIV neutralizing activity. These assays use reverse transcriptase (RT) activity as a measurement of viral activity. The reduction in reverse transcriptase activity under a given set of conditions is a measure of viral neutralization. A reduction in reverse transcriptase activity of 90% under a given set of conditions is a standard measure of viral neutralization.

As described in more detail below, the Std. SN assay measures RT activity at a single time point 7 days post-infection. As a result, it is possible to compare a number of conditions with relatively few assays. However, since each viral isolate has a characteristic time course of infection, the 7 day time point used in the Std. SN assay may not include the period of optimal viral replication. As result, in some instances, the Std. SN assay will not permit accurate determination of

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the effectiveness of the added anti-HIV agents. The Ex. SN assay measures RT activity at several timepoints out to 15 (or 20) days post-infection and thus is more likely to include the period of optimal viral activity for any given viral isolate. Therefore, the Ex. SN assay is preferred.

Three HIV isolates are commonly used in the Std. SN and Ex. SN assays: HIV-MN, HIV-IIIB and HIV-Ala. HIV-Ala is considered a relevant field isolate because it has had low passage in CEM cells. (The sequence of the HIV-Ala V3 loop has been reported to be the most representative of North American HIV isolates.) The viruses used in this assay can be propagated in H9 cells (ATCC, Rockville, MD; or AIDS Research and Reference Reagent Program, Rockville, MD) for 15-30 days to establish a chronic cell line. Newly formed virions are harvested from the supernatant of infected cells and used to infect test cultures as described below.

Serial two-fold dilutions of a anti-V3 loop antibody are incubated with 64 infectious units of HIV virus for 30 minutes at 37°, and then added to CEM-ss cells (50,000 cells per well in 96-well plates). After 7 days, cell free supernatants are harvested and assayed for RT activity using the method of Willey et al. (J. Virol. 62:139, 1988). For determination of 90% and 50% endpoints (i.e., reduction in RT activity by 90% or 50%), densitometry readings of autoradiographs can be generated at 410 nm using a Molecular Devices microplate reader.

The Ex. SN assay is identical to the Std. SN assay except that media is replenished twice during the course of the assay (at day 7 post-infection and at day 12 post-infection). Aliquots are assayed for RT activity (as described above) at 7, 12 and 15 days post-infection.

An Infectivity Reduction Assay (IRA), which measures the difference between the infectious dose of a

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virus in the presence and absence of a standard dilution of an anti-HIV agent, can be used as an even more stringent test of neutralization activity. In contrast to the Std. SN and Ex. SN assays described above, IRA
5 conditions promote cell division and virus replication, and thus it is apt to more closely predict neutralization potential in vivo.

Both laboratory HIV strains and HIV field isolates are tested in the IRA using either CEM-ss cells or PBMC
10 (peripheral blood mononuclear cells, prepared by standard methods), which are more susceptible to infection thought to be more like in vivo situations. Briefly, the IRA is performed as follows. Viral isolates are serially diluted 10-fold in RPMI containing 10% fetal bovine
15 serum. For each dilution of virus, approximately 20 μ g of antibody is then inoculated onto 1×10^6 CEM-ss or PBMC in a 24-well plate. The cultures are maintained for the appropriate number of days (calibrated for the virus used, for example, HIV-MN is 21 days and 14 days for Duke
20 6587-5. Cultures are split 3 times a week (if PBMCs are used, they are supplemented with IL-2 three times a week to maintain optimal virus replication conditions). Virus replication (infectious units) is monitored by reverse transcriptase activity as described above. The
25 infectious titer of virus plus the antibody is compared to the infectious titer of virus plus media.

Engineered Antibodies

The data described herein can be used to generate recombinant antibodies simply by engineering a
30 recombinant antibody to have a suitable framework (preferably subgroup IV or III for the kappa light chain and subgroup II for the heavy chain) and CDRs that include, at the relevant positions some or all of the contact amino acids identified in antibody 58.2 or 59.1.
35 Tables 3 and 4 list the Kabat amino acid numbers

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corresponding to the identified contact amino acids in antibodies 58.2 and 59.1 respectively. This information can be used to identify which amino acids should be exchanged for contact amino acids.

5 Since, for the most part, monoclonal antibodies are produced in species other than humans, they are often immunogenic to humans. In order to successfully use antibodies in the treatment of humans, it may be necessary to create chimeric antibody molecules wherein
10 the antigen binding portion (the variable region) is derived from one species, and the portion involved with providing structural stability and other biological functions (the constant region) is derived from a human antibody. Methods for producing chimeric antibodies in
15 which the variable domain is derived from one species and the constant domain is derived from a second species are well known to those skilled in the art. See, for example, Neuberger et al., WO Publication No. 86/01533, priority September 3, 1984; Morrison et al., EP
20 Publication No. 0,173,494, priority August 27, 1984. An alternative method, in which an antibody is produced by replacing only the complementarity determining regions (CDRs) of the variable region with the CDRs from an immunoglobulin of the desired antigenic specificity, is
25 described by Winter (GB Publication No. 2,188,638, priority March 27, 1986). Murine monoclonals can be made compatible with human therapeutic use by producing an antibody containing a human Fc portion (Morrison, *Science* 229:1202, 1985). Single polypeptide chain antibodies are
30 also more easily produced by recombinant means than are conventional antibodies. Ladner et al. (U.S. Patent No. 4,946,778) describes methods for producing single polypeptide chain antibodies and these methods may be adapted to produce antibodies useful in the methods and
35 compositions of the invention. Established procedures

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would allow construction, expression, and purification of such a hybrid monoclonal antibody. Quadromas can be used to generate bispecific antibodies (Reading et al., U.S. Patent Nos. 4,474,893 and 4,714,681). The patents and
5 publications referred to herein are hereby incorporated by reference.

TABLE 1

VDW	1E 310G	3G 4CA	1	3.45
VDW	1Y 32CD1	3P 5CG	1	3.74
VDW	1Y 32CD1	3P 5CD	1	3.88
VDW	1Y 32CE1	3P 5CG	1	3.56
VDW	1Y 32CE1	3P 5CD	1	3.66
VDW	1F 36CD1	3P 5CD	1	4.04
VDW	1F 36CE1	3P 5CD	1	3.45
VDW	1F 36CE1	3P 5CG	1	4.04
VDW	1F 36CE2	3P 5CD	1	3.98
VDW	1F 36CZ	3P 5CD	1	3.42
VDW	1F 36CZ	3P 5CG	1	3.58
VDW	1N 95CA	3R 7NE2	1	3.68
VDW	1N 95CG	3R 7NE2	1	3.38
EBOND	1N 95OD1	3R 7NE2	1	2.66
EBOND	1N 95OD1	3R 7NE1	1	3.37
VDW	1N 95OD1	3R 7CZ	1	3.47
VDW	1N 95C	3R 7NE2	1	2.94
VDW	1N 95C	3R 7CZ	1	3.83
SHORTBBD	1N 950	3R 7NE2	1	2.42
VDW	1N 950	3R 7CZ	1	3.55
VDW	1N 96C	3R 7CZ	1	3.64
EBOND	1N 960	3G 4N	1	2.81
EBOND	1N 960	3R 7NE	1	3.40
VDW	1N 960	3I 3CB	1	3.29
VDW	1N 960	3I 3CA	1	3.32
VDW	1E 97N	3R 7CZ	1	3.74
VDW	1E 97CA	3R 7CD	1	3.80
VDW	1E 97CA	3R 7CZ	1	3.87
VDW	1E 97CB	3I 3CG2	1	3.88
VDW	1D 98CG	3R 7NE1	1	3.37
VDW	1D 98CG	3R 7CD	1	3.59
VDW	1D 98OD1	3R 7CD	1	3.26
EBOND	1D 98OD2	3R 7NE1	1	2.64
VDW	2N 33CA	3F 9CE1	1	3.96
VDW	2N 33CA	3F 9CZ	1	4.03
VDW	2N 33O	3F 9CE1	1	3.60
VDW	2C 35SG	3F 9CE1	1	3.97
VDW	2C 35SG	3A 8CB	1	4.01
VDW	2R 52NE	3A 8CB	1	3.62
VDW	2R 52CZ	3A 8CB	1	3.70
VDW	2R 52NE2	3A 8CB	1	3.75
VDW	2C 54CB	3F 9CD1	1	4.08
VDW	2C 54SG	3A 8CB	1	3.52
VDW	2Y 55CD2	3F 9CD1	1	3.91
VDW	2Y 55CD2	3F 9CE1	1	4.01
VDW	2Y 55CE2	3F 9CD1	1	3.36
VDW	2Y 55CE2	3F 9CE1	1	3.60
VDW	2Y 55CE2	3F 9CG	1	4.02
VDW	2E 56CD	3F 9CB	1	3.77
VDW	2E 56OE2	3F 9CB	1	3.63
VDW	2H102CB	3F 9CZ	1	3.87
VDW	2H102CB	3F 9CE1	1	3.89
VDW	2H102CD2	3A 8CB	1	3.42
VDW	2H102CD2	3F 9CE1	1	3.69
VDW	2H102CD2	3A 8N	1	3.73
VDW	2H102CD2	3F 9CZ	1	3.75
VDW	2H102CE1	3R 7CB	1	3.90
VDW	2H102CE1	3R 7CZ	1	4.09
EBOND	2H102NE2	3A 8N	1	3.09
VDW	2H102NE2	3A 8CB	1	3.25
VDW	2H102NE2	3R 7CB	1	3.65
VDW	2H102NE2	3A 8CA	1	3.77
EBOND	2H102O	3G 6N	1	2.76
VDW	2H102O	3P 5CA	1	3.20
VDW	2H102O	3P 5CB	1	3.26
VDW	2H102O	3P 5C	1	3.54
VDW	2H102O	3G 6CA	1	3.70
VDW	2M103SD	3F 9CE2	1	3.45
VDW	2M103SD	3F 9CZ	1	4.03
VDW	2M103CE	3G 6CA	1	3.85
VDW	2M103O	3P 5CB	1	3.31

TABLE 2 (p. 2 of 2)

VDW	1	3F450CD1	3.78				
0*****	2Y266CZ						
VDW	1	3R448NH1	3.72	1	3F450CD1	4.09	
0*****	2Y266OH						
VDW	1	3F450CD1	3.54				
0*****	2H268CB						
VDW	1	3F450CG	3.95	1	3F450CD2	4.08	
0*****	2H268CG						
VDW	1	3F450CG	3.67	1	3F450CD2	3.67	1 3F450CB 3.81
0*****	2H268CD2						
VDW	1	3F450CB	3.50	1	3F450CG	3.90	
0*****	2H268ND1						
VDW	1	3F450CD2	3.38				
0*****	2H268CE1						
VDW	1	3F450CD2	3.72	1	3F450CB	3.97	
0*****	2H268NE2						
VDW	1	3F450CB	3.61				
0*****	2Y269CE2						
SHORTVDW	1	3G452O	2.91				
VDW	1	3G452C	3.93				
0*****	2Y269CZ						
VDW	1	3G452O	3.47				
0*****	2Y269OH						
HBOND	1	3G452O	3.27				
0*****	2G272CA						
VDW	1	3F450CZ	3.74	1	3F450CE2	3.96	
0*****	2G272C						
VDW	1	3F450CZ	3.52				
0*****	2T273N						
VDW	1	3F450CZ	3.59				
0*****	2T273C						
VDW	1	3F450CE1	3.80				
0*****	2T273O						
VDW	1	3F450CE1	3.39	1	3F450CZ	3.71	
0*****	2E314CD						
VDW	1	3R448NH2	3.09				
0*****	2E314OE1						
HBOND	1	3R448NH2	2.79				
VDW	1	3R448CZ	3.58				
0*****	2E314OE2						
HBOND	1	3R448NH2	2.66				
0*****	2Y326CD2						
VDW	1	3I444CG2	4.03				

IS	SHORTBD	HBOND		SHORTVDW	VDW		TOTAL
1	0	9		1	67	0	77

1
STOP:

D.

TABLE 3: CONVERSION FOR 58.2 NUMBERS TO KABAT NUMBERS

<u>Antibody Amino Acid</u>	<u>Kabat Number</u>
IF 31	27D
IH 96	92
light chain IE 97	93
ID 98	94
IL 100	96
2Y 248	33
2Y 266	50
2H 268	52
heavy chain 2Y 269	53
2G 272	56
2T 273	57
2E 314	95
2Y 326	100 I

TABLE 4: CONVERSION FOR 59.1 NUMBERS TO KABAT NUMBERS

<u>Antibody Amino Acid</u>	<u>Kabat Amino Acid Number</u>
IS 31	27D
IY 32	28
IF 36	32
lt. chain IN 95	91
IN 96	92
IE 97	93
ID 98	94
2N 33	33
2C 35	35
2R 52	50
2C 54	52
hvy chain 2Y 55	53
2E 56	54
2H 102	97
2M 103	98

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ATOM	1	CB	ASP	1001	85.370	62.391	-31.445	1.00107.12	lite
ATOM	2	CG	ASP	1001	84.801	63.706	-31.918	1.00107.12	lite
ATOM	3	OD1	ASP	1001	85.454	64.719	-31.470	1.00107.12	lite
ATOM	4	OD2	ASP	1001	83.805	63.700	-32.681	1.00107.12	lite
ATOM	5	C	ASP	1001	85.944	60.436	-30.437	1.00 55.44	lite
ATOM	6	O	ASP	1001	87.065	60.065	-30.862	1.00107.12	lite
ATOM	9	N	ASP	1001	83.525	60.418	-30.769	1.00 55.44	lite
ATOM	11	CA	ASP	1001	84.760	60.891	-31.422	1.00 55.44	lite
ATOM	12	N	ILE	1002	85.345	60.870	-29.236	1.00 34.13	lite
ATOM	14	CA	ILE	1002	85.495	60.593	-27.774	1.00 34.13	lite
ATOM	15	CB	ILE	1002	84.909	61.731	-26.797	1.00 8.03	lite
ATOM	16	CG2	ILE	1002	85.512	61.588	-25.453	1.00 8.03	lite
ATOM	17	CG1	ILE	1002	85.244	63.057	-27.243	1.00 8.03	lite
ATOM	18	CD1	ILE	1002	84.910	64.302	-26.393	1.00 8.03	lite
ATOM	19	C	ILE	1002	84.762	59.464	-27.051	1.00 34.13	lite
ATOM	20	O	ILE	1002	83.576	59.480	-27.290	1.00 8.03	lite
ATOM	21	N	VAL	1003	85.382	58.539	-26.318	1.00 17.42	lite
ATOM	23	CA	VAL	1003	84.883	57.326	-25.720	1.00 17.42	lite
ATOM	24	CB	VAL	1003	85.628	56.152	-26.304	1.00 23.27	lite
ATOM	25	CG1	VAL	1003	85.687	54.925	-25.400	1.00 23.27	lite
ATOM	26	CG2	VAL	1003	84.939	55.797	-27.559	1.00 23.27	lite
ATOM	27	C	VAL	1003	85.263	57.409	-24.264	1.00 17.42	lite
ATOM	28	O	VAL	1003	86.408	57.673	-23.896	1.00 23.27	lite
ATOM	29	N	LEU	1004	84.392	57.151	-23.352	1.00 15.99	lite
ATOM	31	CA	LEU	1004	84.802	57.285	-21.985	1.00 15.99	lite
ATOM	32	CB	LEU	1004	83.738	57.988	-21.187	1.00 2.00	lite
ATOM	33	CG	LEU	1004	83.216	59.278	-21.785	1.00 2.00	lite
ATOM	34	CD1	LEU	1004	82.572	59.981	-20.672	1.00 2.00	lite
ATOM	35	CD2	LEU	1004	84.274	60.235	-22.215	1.00 2.00	lite
ATOM	36	C	LEU	1004	85.012	55.884	-21.487	1.00 15.99	lite
ATOM	37	O	LEU	1004	84.129	55.034	-21.578	1.00 2.00	lite
ATOM	38	N	THR	1005	86.194	55.590	-20.939	1.00 11.32	lite
ATOM	40	CA	THR	1005	86.498	54.275	-20.365	1.00 11.32	lite
ATOM	41	CB	THR	1005	87.871	53.790	-20.796	1.00 20.64	lite
ATOM	42	OG1	THR	1005	87.918	53.980	-22.222	1.00 20.64	lite
ATOM	44	CG2	THR	1005	88.145	52.352	-20.392	1.00 20.64	lite
ATOM	45	C	THR	1005	86.490	54.258	-18.848	1.00 11.32	lite
ATOM	46	O	THR	1005	87.174	55.051	-18.207	1.00 20.64	lite
ATOM	47	N	GLN	1006	85.721	53.366	-18.225	1.00 25.89	lite
ATOM	49	CA	GLN	1006	85.668	53.204	-16.771	1.00 25.89	lite
ATOM	50	CB	GLN	1006	84.232	53.152	-16.301	1.00 19.74	lite
ATOM	51	CG	GLN	1006	83.593	54.465	-16.610	1.00 19.74	lite
ATOM	52	CD	GLN	1006	82.307	54.720	-15.849	1.00 19.74	lite
ATOM	53	OE1	GLN	1006	81.393	55.298	-16.419	1.00 19.74	lite
ATOM	54	NE2	GLN	1006	82.094	54.345	-14.591	1.00 19.74	lite
ATOM	57	C	GLN	1006	86.374	51.983	-16.151	1.00 25.89	lite
ATOM	58	O	GLN	1006	86.114	50.805	-16.414	1.00 19.74	lite
ATOM	59	N	SER	1007	87.371	52.300	-15.346	1.00 22.37	lite
ATOM	61	CA	SER	1007	88.093	51.335	-14.514	1.00 22.37	lite
ATOM	62	CB	SER	1007	89.606	51.495	-14.641	1.00 41.25	lite
ATOM	63	OG	SER	1007	89.998	52.891	-14.711	1.00 41.25	lite
ATOM	65	C	SER	1007	87.756	51.545	-13.042	1.00 22.37	lite
ATOM	66	O	SER	1007	87.860	52.691	-12.571	1.00 41.25	lite
ATOM	67	N	CPR	1008	87.199	50.548	-12.329	1.00 12.06	lite
ATOM	68	CD	CPR	1008	87.269	50.449	-10.869	1.00 12.90	lite
ATOM	69	CA	CPR	1008	86.843	49.242	-12.873	1.00 12.06	lite
ATOM	70	CB	CPR	1008	87.337	48.270	-11.863	1.00 12.90	lite
ATOM	71	CG	CPR	1008	86.974	48.955	-10.567	1.00 12.90	lite
ATOM	72	C	CPR	1008	85.377	48.993	-13.188	1.00 12.06	lite
ATOM	73	O	CPR	1008	84.463	49.697	-12.791	1.00 12.90	lite
ATOM	74	N	ALA	1009	85.141	47.913	-13.879	1.00 10.22	lite
ATOM	76	CA	ALA	1009	83.797	47.439	-14.178	1.00 10.22	lite
ATOM	77	CB	ALA	1009	83.997	46.099	-14.826	1.00 16.61	lite
ATOM	78	C	ALA	1009	82.759	47.329	-13.055	1.00 10.22	lite
ATOM	79	O	ALA	1009	81.598	47.675	-13.156	1.00 16.61	lite
ATOM	80	N	SER	1010	83.282	46.801	-11.962	1.00 21.71	lite
ATOM	82	CA	SER	1010	82.685	46.595	-10.633	1.00 21.71	lite

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ATOM	83	CB	SER	1010	82.070	45.218	-10.447	1.00	21.02	lite
ATOM	84	OG	SER	1010	83.098	44.210	-10.408	1.00	21.02	lite
ATOM	86	C	SER	1010	83.809	46.658	-9.551	1.00	21.71	lite
ATOM	87	O	SER	1010	85.011	46.466	-9.816	1.00	21.02	lite
ATOM	88	N	LEU	1011	83.497	46.934	-8.303	1.00	17.66	lite
ATOM	90	CA	LEU	1011	84.491	46.861	-7.270	1.00	17.66	lite
ATOM	91	CB	LEU	1011	85.325	48.131	-7.182	1.00	21.04	lite
ATOM	92	CG	LEU	1011	84.733	49.417	-6.673	1.00	21.04	lite
ATOM	93	CD1	LEU	1011	85.860	50.335	-6.228	1.00	21.04	lite
ATOM	94	CD2	LEU	1011	83.856	50.035	-7.747	1.00	21.04	lite
ATOM	95	C	LEU	1011	83.743	46.663	-5.957	1.00	17.66	lite
ATOM	96	O	LEU	1011	82.613	47.222	-5.814	1.00	21.04	lite
ATOM	97	N	ALA	1012	84.336	45.804	-5.059	1.00	23.55	lite
ATOM	99	CA	ALA	1012	83.700	45.619	-3.764	1.00	23.55	lite
ATOM	100	CB	ALA	1012	83.707	44.126	-3.388	1.00	23.52	lite
ATOM	101	C	ALA	1012	84.331	46.433	-2.614	1.00	23.55	lite
ATOM	102	O	ALA	1012	85.557	46.425	-2.424	1.00	23.52	lite
ATOM	103	N	VAL	1013	83.546	47.167	-1.819	1.00	12.72	lite
ATOM	105	CA	VAL	1013	84.104	47.992	-0.795	1.00	12.72	lite
ATOM	106	CB	VAL	1013	84.090	49.354	-1.416	1.00	11.12	lite
ATOM	107	CG1	VAL	1013	83.914	50.409	-0.374	1.00	11.12	lite
ATOM	108	CG2	VAL	1013	85.476	49.632	-2.062	1.00	11.12	lite
ATOM	109	C	VAL	1013	83.417	47.890	0.548	1.00	12.72	lite
ATOM	110	O	VAL	1013	82.198	47.906	0.673	1.00	11.12	lite
ATOM	111	N	SER	1014	84.200	47.773	1.626	1.00	15.29	lite
ATOM	113	CA	SER	1014	83.648	47.558	2.957	1.00	15.29	lite
ATOM	114	CB	SER	1014	84.708	47.048	3.923	1.00	22.02	lite
ATOM	115	OG	SER	1014	85.419	45.869	3.479	1.00	22.02	lite
ATOM	117	C	SER	1014	83.071	48.794	3.530	1.00	15.29	lite
ATOM	118	O	SER	1014	83.297	49.911	3.063	1.00	22.02	lite
ATOM	119	N	LEU	1015	82.332	48.617	4.601	1.00	28.55	lite
ATOM	121	CA	LEU	1015	81.657	49.779	5.166	1.00	28.55	lite
ATOM	122	CB	LEU	1015	80.651	49.346	6.220	1.00	41.01	lite
ATOM	123	CG	LEU	1015	79.176	49.659	5.836	1.00	41.01	lite
ATOM	124	CD1	LEU	1015	78.929	51.201	5.834	1.00	41.01	lite
ATOM	125	CD2	LEU	1015	78.873	49.018	4.446	1.00	41.01	lite
ATOM	126	C	LEU	1015	82.618	50.767	5.769	1.00	28.55	lite
ATOM	127	O	LEU	1015	83.538	50.400	6.497	1.00	41.01	lite
ATOM	128	N	GLY	1016	82.437	52.011	5.383	1.00	16.44	lite
ATOM	130	CA	GLY	1016	83.338	53.018	5.849	1.00	16.44	lite
ATOM	131	C	GLY	1016	84.638	53.012	5.084	1.00	16.44	lite
ATOM	132	O	GLY	1016	85.408	53.953	5.306	1.00	41.42	lite
ATOM	133	N	GLN	1017	84.934	52.051	4.173	1.00	32.14	lite
ATOM	135	CA	GLN	1017	86.213	51.995	3.404	1.00	32.14	lite
ATOM	136	CB	GLN	1017	86.221	50.642	2.631	1.00	56.32	lite
ATOM	137	CG	GLN	1017	87.560	49.880	2.559	1.00	56.32	lite
ATOM	138	CD	GLN	1017	87.674	48.754	1.478	1.00	56.32	lite
ATOM	139	OE1	GLN	1017	87.202	47.583	1.634	1.00	56.32	lite
ATOM	140	NE2	GLN	1017	88.294	49.091	0.313	1.00	56.32	lite
ATOM	143	C	GLN	1017	86.544	53.179	2.427	1.00	32.14	lite
ATOM	144	O	GLN	1017	86.490	54.403	2.760	1.00	56.32	lite
ATOM	145	N	ARG	1018	86.937	52.913	1.168	1.00	23.54	lite
ATOM	147	CA	ARG	1018	87.174	53.995	0.198	1.00	23.54	lite
ATOM	148	CB	ARG	1018	88.529	54.574	0.386	1.00	46.72	lite
ATOM	149	CG	ARG	1018	88.822	55.889	-0.332	1.00	46.72	lite
ATOM	150	CD	ARG	1018	89.698	56.832	0.533	1.00	46.72	lite
ATOM	151	NE	ARG	1018	89.818	58.024	-0.294	1.00	46.72	lite
ATOM	153	CZ	ARG	1018	89.671	59.281	0.181	1.00	46.72	lite
ATOM	154	NH1	ARG	1018	89.392	59.546	1.499	1.00	46.72	lite
ATOM	157	NH2	ARG	1018	89.839	60.296	-0.721	1.00	46.72	lite
ATOM	160	C	ARG	1018	87.077	53.481	-1.228	1.00	23.54	lite
ATOM	161	O	ARG	1018	87.692	52.485	-1.661	1.00	46.72	lite
ATOM	162	N	ALA	1019	86.118	54.102	-1.900	1.00	34.78	lite
ATOM	164	CA	ALA	1019	85.824	53.690	-3.249	1.00	34.78	lite
ATOM	165	CB	ALA	1019	84.334	53.316	-3.370	1.00	20.85	lite
ATOM	166	C	ALA	1019	86.157	54.874	-4.123	1.00	34.78	lite
ATOM	167	O	ALA	1019	85.793	56.043	-3.891	1.00	20.85	lite

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ATOM	168	N	THR	1020	86.953	54.471	-5.096	1.00	20.53	lite
ATOM	170	CA	THR	1020	87.465	55.419	-6.067	1.00	20.53	lite
ATOM	171	CB	THR	1020	88.841	55.672	-5.557	1.00	17.75	lite
ATOM	172	OG1	THR	1020	88.551	56.546	-4.421	1.00	17.75	lite
ATOM	174	CG2	THR	1020	89.865	56.110	-6.625	1.00	17.75	lite
ATOM	175	C	THR	1020	87.383	54.957	-7.512	1.00	20.53	lite
ATOM	176	O	THR	1020	88.105	54.114	-8.024	1.00	17.75	lite
ATOM	177	N	ILE	1021	86.341	55.420	-8.165	1.00	12.91	lite
ATOM	179	CA	ILE	1021	86.076	54.984	-9.512	1.00	12.91	lite
ATOM	180	CB	ILE	1021	84.545	55.040	-9.723	1.00	8.13	lite
ATOM	181	CG2	ILE	1021	84.182	54.604	-11.136	1.00	8.13	lite
ATOM	182	CG1	ILE	1021	83.846	54.092	-8.770	1.00	8.13	lite
ATOM	183	CD1	ILE	1021	82.780	54.881	-8.038	1.00	8.13	lite
ATOM	184	C	ILE	1021	86.829	55.947	-10.384	1.00	12.91	lite
ATOM	185	O	ILE	1021	86.929	57.124	-10.052	1.00	8.13	lite
ATOM	186	N	SER	1022	87.386	55.431	-11.462	1.00	19.62	lite
ATOM	188	CA	SER	1022	88.096	56.216	-12.499	1.00	19.62	lite
ATOM	189	CB	SER	1022	89.415	55.492	-12.778	1.00	22.89	lite
ATOM	190	OG	SER	1022	89.988	55.907	-14.005	1.00	22.89	lite
ATOM	192	C	SER	1022	87.360	56.502	-13.857	1.00	19.62	lite
ATOM	193	O	SER	1022	86.405	55.829	-14.239	1.00	22.89	lite
ATOM	194	N	CYS	1023	87.643	57.445	-14.720	1.00	9.02	lite
ATOM	196	CA	CYS	1023	86.959	57.494	-15.998	1.00	9.02	lite
ATOM	197	C	CYS	1023	87.988	58.122	-16.892	1.00	9.02	lite
ATOM	198	O	CYS	1023	88.744	59.001	-16.476	1.00	16.31	lite
ATOM	199	CB	CYS	1023	85.714	58.345	-15.892	1.00	16.31	lite
ATOM	200	SG	CYS	1023	84.822	58.600	-17.453	1.00	16.31	lite
ATOM	201	N	LYS	1024	88.099	57.667	-18.115	1.00	18.14	lite
ATOM	203	CA	LYS	1024	89.135	58.178	-18.971	1.00	18.14	lite
ATOM	204	CB	LYS	1024	90.211	57.160	-19.098	1.00	34.38	lite
ATOM	205	CG	LYS	1024	91.442	57.874	-19.565	1.00	34.38	lite
ATOM	206	CD	LYS	1024	92.220	57.052	-20.585	1.00	34.38	lite
ATOM	207	CE	LYS	1024	93.733	57.445	-20.603	1.00	34.38	lite
ATOM	208	NZ	LYS	1024	94.101	58.834	-20.985	1.00	34.38	lite
ATOM	212	C	LYS	1024	88.592	58.483	-20.345	1.00	18.14	lite
ATOM	213	O	LYS	1024	88.205	57.588	-21.106	1.00	34.38	lite
ATOM	214	N	ALA	1025	88.515	59.758	-20.639	1.00	2.00	lite
ATOM	216	CA	ALA	1025	88.076	60.223	-21.925	1.00	2.00	lite
ATOM	217	CB	ALA	1025	87.796	61.697	-21.722	1.00	14.09	lite
ATOM	218	C	ALA	1025	89.048	59.972	-23.081	1.00	2.00	lite
ATOM	219	O	ALA	1025	90.229	60.196	-22.964	1.00	14.09	lite
ATOM	220	N	SER	1026	88.758	59.525	-24.278	1.00	16.81	lite
ATOM	222	CA	SER	1026	89.804	59.400	-25.326	1.00	16.81	lite
ATOM	223	CB	SER	1026	89.265	58.608	-26.496	1.00	19.76	lite
ATOM	224	OG	SER	1026	88.135	59.373	-26.929	1.00	19.76	lite
ATOM	226	C	SER	1026	90.452	60.671	-25.951	1.00	16.81	lite
ATOM	227	O	SER	1026	91.395	60.645	-26.769	1.00	19.76	lite
ATOM	228	N	GLN	1027	89.823	61.829	-25.745	1.00	8.73	lite
ATOM	230	CA	GLN	1027	90.282	63.105	-26.260	1.00	8.73	lite
ATOM	231	CB	GLN	1027	89.412	63.594	-27.391	1.00	30.56	lite
ATOM	232	CG	GLN	1027	89.016	62.479	-28.408	1.00	30.56	lite
ATOM	233	CD	GLN	1027	88.916	62.930	-29.873	1.00	30.56	lite
ATOM	234	OE1	GLN	1027	87.846	62.945	-30.515	1.00	30.56	lite
ATOM	235	NE2	GLN	1027	90.008	63.330	-30.512	1.00	30.56	lite
ATOM	238	C	GLN	1027	90.030	63.988	-25.058	1.00	8.73	lite
ATOM	239	O	GLN	1027	88.976	63.837	-24.454	1.00	30.56	lite
ATOM	240	N	GLY	1028	90.902	64.887	-24.615	1.00	12.55	lite
ATOM	242	CA	GLY	1028	90.676	65.716	-23.433	1.00	12.55	lite
ATOM	243	C	GLY	1028	89.359	66.473	-23.426	1.00	12.55	lite
ATOM	244	O	GLY	1028	88.910	66.893	-24.487	1.00	17.16	lite
ATOM	245	N	VAL	1029	88.709	66.679	-22.269	1.00	11.65	lite
ATOM	247	CA	VAL	1029	87.395	67.311	-22.248	1.00	11.65	lite
ATOM	248	CB	VAL	1029	86.332	66.408	-21.535	1.00	14.42	lite
ATOM	249	CG1	VAL	1029	86.098	65.111	-22.296	1.00	14.42	lite
ATOM	250	CG2	VAL	1029	86.811	66.111	-20.123	1.00	14.42	lite
ATOM	251	C	VAL	1029	87.271	68.678	-21.658	1.00	11.65	lite
ATOM	252	O	VAL	1029	86.156	69.131	-21.407	1.00	14.42	lite

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ATOM	253	N	ASP	1030	88.398	69.364	-21.494	1.00	6.61	lite
ATOM	255	CA	ASP	1030	88.470	70.762	-20.990	1.00	6.61	lite
ATOM	256	CB	ASP	1030	89.791	71.082	-20.264	1.00	16.06	lite
ATOM	257	CG	ASP	1030	90.286	70.078	-19.226	1.00	16.06	lite
ATOM	258	OD1	ASP	1030	89.577	69.122	-18.906	1.00	16.06	lite
ATOM	259	OD2	ASP	1030	91.410	70.207	-18.755	1.00	16.06	lite
ATOM	260	C	ASP	1030	88.318	71.925	-21.980	1.00	6.61	lite
ATOM	261	O	ASP	1030	88.585	71.835	-23.176	1.00	16.06	lite
ATOM	262	N	PHE	1031	87.825	73.044	-21.491	1.00	6.32	lite
ATOM	264	CA	PHE	1031	87.603	74.205	-22.308	1.00	6.32	lite
ATOM	265	CB	PHE	1031	86.520	73.910	-23.309	1.00	18.73	lite
ATOM	266	CG	PHE	1031	86.119	75.117	-24.142	1.00	18.73	lite
ATOM	267	CD1	PHE	1031	86.955	75.619	-25.140	1.00	18.73	lite
ATOM	268	CD2	PHE	1031	84.929	75.756	-23.830	1.00	18.73	lite
ATOM	269	CE1	PHE	1031	86.615	76.764	-25.827	1.00	18.73	lite
ATOM	270	CE2	PHE	1031	84.606	76.910	-24.536	1.00	18.73	lite
ATOM	271	CZ	PHE	1031	85.444	77.415	-25.526	1.00	18.73	lite
ATOM	272	C	PHE	1031	87.195	75.409	-21.442	1.00	6.32	lite
ATOM	273	O	PHE	1031	86.116	75.452	-20.812	1.00	18.73	lite
ATOM	274	N	ASP	1032	88.076	76.444	-21.589	1.00	15.83	lite
ATOM	276	CA	ASP	1032	88.141	77.701	-20.826	1.00	15.83	lite
ATOM	277	CB	ASP	1032	86.849	78.539	-20.805	1.00	27.37	lite
ATOM	278	CG	ASP	1032	86.878	79.598	-21.940	1.00	27.37	lite
ATOM	279	OD1	ASP	1032	87.970	80.069	-22.334	1.00	27.37	lite
ATOM	280	OD2	ASP	1032	85.812	79.976	-22.459	1.00	27.37	lite
ATOM	281	C	ASP	1032	88.464	77.326	-19.429	1.00	15.83	lite
ATOM	282	O	ASP	1032	89.455	76.641	-19.238	1.00	27.37	lite
ATOM	283	N	GLY	1033	87.733	77.653	-18.399	1.00	37.08	lite
ATOM	285	CA	GLY	1033	88.109	77.134	-17.054	1.00	37.08	lite
ATOM	286	C	GLY	1033	87.825	75.635	-16.780	1.00	37.08	lite
ATOM	287	O	GLY	1033	88.638	74.887	-16.212	1.00	32.68	lite
ATOM	288	N	ALA	1034	86.655	75.259	-17.340	1.00	14.51	lite
ATOM	290	CA	ALA	1034	85.921	74.021	-17.162	1.00	14.51	lite
ATOM	291	CB	ALA	1034	84.512	74.317	-17.500	1.00	8.06	lite
ATOM	292	C	ALA	1034	86.195	72.671	-17.746	1.00	14.51	lite
ATOM	293	O	ALA	1034	86.329	72.539	-18.952	1.00	8.06	lite
ATOM	294	N	SER	1035	86.284	71.649	-16.903	1.00	9.72	lite
ATOM	296	CA	SER	1035	86.292	70.261	-17.411	1.00	9.72	lite
ATOM	297	CB	SER	1035	86.763	69.162	-16.494	1.00	24.38	lite
ATOM	298	CG	SER	1035	88.169	69.029	-16.373	1.00	24.38	lite
ATOM	300	C	SER	1035	84.906	69.776	-17.703	1.00	9.72	lite
ATOM	301	O	SER	1035	84.116	69.584	-16.799	1.00	24.38	lite
ATOM	302	N	PHE	1036	84.527	69.506	-18.933	1.00	14.21	lite
ATOM	304	CA	PHE	1036	83.142	69.142	-19.267	1.00	14.21	lite
ATOM	305	CB	PHE	1036	82.948	69.452	-20.730	1.00	6.15	lite
ATOM	306	CG	PHE	1036	82.927	70.926	-20.977	1.00	6.15	lite
ATOM	307	CD1	PHE	1036	84.083	71.630	-21.063	1.00	6.15	lite
ATOM	308	CD2	PHE	1036	81.751	71.575	-21.035	1.00	6.15	lite
ATOM	309	CE1	PHE	1036	84.047	72.995	-21.204	1.00	6.15	lite
ATOM	310	CE2	PHE	1036	81.734	72.929	-21.174	1.00	6.15	lite
ATOM	311	CZ	PHE	1036	82.873	73.655	-21.256	1.00	6.15	lite
ATOM	312	C	PHE	1036	82.744	67.705	-18.975	1.00	14.21	lite
ATOM	313	O	PHE	1036	82.156	67.018	-19.809	1.00	6.15	lite
ATOM	314	N	MET	1037	83.135	67.231	-17.797	1.00	8.73	lite
ATOM	316	CA	MET	1037	82.874	65.896	-17.312	1.00	8.73	lite
ATOM	317	CB	MET	1037	84.189	65.281	-16.853	1.00	6.04	lite
ATOM	318	CG	MET	1037	84.092	63.818	-16.514	1.00	6.04	lite
ATOM	319	SD	MET	1037	83.688	62.724	-17.887	1.00	6.04	lite
ATOM	320	CE	MET	1037	84.916	63.148	-19.046	1.00	6.04	lite
ATOM	321	C	MET	1037	81.867	65.946	-16.163	1.00	8.73	lite
ATOM	322	O	MET	1037	81.987	66.762	-15.271	1.00	6.04	lite
ATOM	323	N	ASN	1038	80.831	65.109	-16.188	1.00	5.06	lite
ATOM	325	CA	ASN	1038	79.788	65.002	-15.176	1.00	5.06	lite
ATOM	326	CB	ASN	1038	78.433	65.395	-15.676	1.00	12.61	lite
ATOM	327	CG	ASN	1038	78.453	66.455	-16.736	1.00	12.61	lite
ATOM	328	OD1	ASN	1038	78.453	67.632	-16.524	1.00	12.61	lite
ATOM	329	ND2	ASN	1038	78.530	66.204	-17.996	1.00	12.61	lite

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ATOM	332	C	ASN	1038	79.648	63.542	-14.745	1.00	5.06	lite
ATOM	333	O	ASN	1038	80.079	62.648	-15.489	1.00	12.61	lite
ATOM	334	N	TRP	1039	79.014	63.272	-13.589	1.00	9.72	lite
ATOM	336	CA	TRP	1039	78.851	61.922	-13.056	1.00	9.72	lite
ATOM	337	CB	TRP	1039	79.773	61.703	-11.880	1.00	2.00	lite
ATOM	338	CG	TRP	1039	81.267	61.626	-12.161	1.00	2.00	lite
ATOM	339	CD2	TRP	1039	81.974	60.473	-12.308	1.00	2.00	lite
ATOM	340	CE2	TRP	1039	83.263	60.950	-12.446	1.00	2.00	lite
ATOM	341	CE3	TRP	1039	81.710	59.146	-12.339	1.00	2.00	lite
ATOM	342	CD1	TRP	1039	82.062	62.737	-12.220	1.00	2.00	lite
ATOM	343	NE1	TRP	1039	83.270	62.287	-12.392	1.00	2.00	lite
ATOM	345	CZ2	TRP	1039	84.325	60.111	-12.613	1.00	2.00	lite
ATOM	346	CZ3	TRP	1039	82.782	58.311	-12.508	1.00	2.00	lite
ATOM	347	CH2	TRP	1039	84.068	58.772	-12.642	1.00	2.00	lite
ATOM	348	C	TRP	1039	77.424	61.629	-12.590	1.00	9.72	lite
ATOM	349	O	TRP	1039	76.821	62.533	-12.005	1.00	2.00	lite
ATOM	350	N	TYR	1040	76.878	60.412	-12.840	1.00	8.33	lite
ATOM	352	CA	TYR	1040	75.492	59.988	-12.579	1.00	8.33	lite
ATOM	353	CB	TYR	1040	74.690	59.599	-13.874	1.00	12.23	lite
ATOM	354	CG	TYR	1040	74.380	60.854	-14.699	1.00	12.23	lite
ATOM	355	CD1	TYR	1040	75.310	61.400	-15.544	1.00	12.23	lite
ATOM	356	CE1	TYR	1040	75.062	62.623	-16.145	1.00	12.23	lite
ATOM	357	CD2	TYR	1040	73.209	61.563	-14.502	1.00	12.23	lite
ATOM	358	CE2	TYR	1040	72.960	62.784	-15.104	1.00	12.23	lite
ATOM	359	CZ	TYR	1040	73.896	63.312	-15.926	1.00	12.23	lite
ATOM	360	OH	TYR	1040	73.673	64.511	-16.537	1.00	12.23	lite
ATOM	362	C	TYR	1040	75.537	58.766	-11.738	1.00	8.33	lite
ATOM	363	O	TYR	1040	76.358	57.882	-11.990	1.00	12.23	lite
ATOM	364	N	GLN	1041	74.692	58.698	-10.736	1.00	12.84	lite
ATOM	366	CA	GLN	1041	74.614	57.518	-9.898	1.00	12.84	lite
ATOM	367	CB	GLN	1041	74.482	57.902	-8.451	1.00	12.50	lite
ATOM	368	CG	GLN	1041	74.380	56.760	-7.472	1.00	12.50	lite
ATOM	369	CD	GLN	1041	73.892	57.206	-6.131	1.00	12.50	lite
ATOM	370	OE1	GLN	1041	72.872	57.848	-5.931	1.00	12.50	lite
ATOM	371	NE2	GLN	1041	74.584	56.860	-5.106	1.00	12.50	lite
ATOM	374	C	GLN	1041	73.346	56.818	-10.306	1.00	12.84	lite
ATOM	375	O	GLN	1041	72.417	57.593	-10.518	1.00	12.50	lite
ATOM	376	N	GLN	1042	73.187	55.483	-10.413	1.00	11.78	lite
ATOM	378	CA	GLN	1042	71.924	54.802	-10.697	1.00	11.78	lite
ATOM	379	CB	GLN	1042	71.782	54.389	-12.168	1.00	15.01	lite
ATOM	380	CG	GLN	1042	70.510	53.578	-12.524	1.00	15.01	lite
ATOM	381	CD	GLN	1042	70.204	53.328	-13.971	1.00	15.01	lite
ATOM	382	OE1	GLN	1042	71.009	52.795	-14.722	1.00	15.01	lite
ATOM	383	NE2	GLN	1042	69.047	53.675	-14.465	1.00	15.01	lite
ATOM	386	C	GLN	1042	71.705	53.520	-9.906	1.00	11.78	lite
ATOM	387	O	GLN	1042	72.488	52.565	-9.858	1.00	15.01	lite
ATOM	388	N	LYS	1043	70.571	53.501	-9.249	1.00	13.37	lite
ATOM	390	CA	LYS	1043	70.084	52.336	-8.526	1.00	13.37	lite
ATOM	391	CB	LYS	1043	69.477	52.810	-7.235	1.00	13.43	lite
ATOM	392	CG	LYS	1043	70.567	53.292	-6.336	1.00	13.43	lite
ATOM	393	CD	LYS	1043	69.994	54.166	-5.274	1.00	13.43	lite
ATOM	394	CE	LYS	1043	71.001	54.292	-4.121	1.00	13.43	lite
ATOM	395	NZ	LYS	1043	71.220	53.053	-3.366	1.00	13.43	lite
ATOM	399	C	LYS	1043	69.024	51.609	-9.358	1.00	13.37	lite
ATOM	400	O	LYS	1043	68.210	52.226	-10.074	1.00	13.43	lite
ATOM	401	N	PRO	1044	68.931	50.293	-9.239	1.00	5.25	lite
ATOM	402	CD	PRO	1044	69.637	49.487	-8.235	1.00	23.73	lite
ATOM	403	CA	PRO	1044	67.969	49.483	-9.986	1.00	5.25	lite
ATOM	404	CB	PRO	1044	68.135	48.096	-9.405	1.00	23.73	lite
ATOM	405	CG	PRO	1044	68.597	48.398	-7.987	1.00	23.73	lite
ATOM	406	C	PRO	1044	66.545	49.965	-9.946	1.00	5.25	lite
ATOM	407	O	PRO	1044	66.069	50.349	-8.878	1.00	23.73	lite
ATOM	408	N	GLY	1045	65.940	50.046	-11.136	1.00	18.28	lite
ATOM	410	CA	GLY	1045	64.571	50.523	-11.322	1.00	18.28	lite
ATOM	411	C	GLY	1045	64.385	52.054	-11.192	1.00	18.28	lite
ATOM	412	O	GLY	1045	63.334	52.555	-10.753	1.00	34.41	lite
ATOM	413	N	GLN	1046	65.393	52.872	-11.543	1.00	12.79	lite

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ATOM	415	CA	GLN	1046	65.282	54.320	-11.345	1.00	12.79	lite
ATOM	416	CB	GLN	1046	65.675	54.725	-9.981	1.00	24.80	lite
ATOM	417	CG	GLN	1046	64.677	54.838	-8.894	1.00	24.80	lite
ATOM	418	CD	GLN	1046	65.570	55.253	-7.736	1.00	24.80	lite
ATOM	419	OE1	GLN	1046	65.778	56.459	-7.520	1.00	24.80	lite
ATOM	420	NE2	GLN	1046	66.236	54.360	-6.982	1.00	24.80	lite
ATOM	423	C	GLN	1046	66.261	54.994	-12.248	1.00	12.79	lite
ATOM	424	O	GLN	1046	67.288	54.369	-12.531	1.00	24.80	lite
ATOM	425	N	PRO	1047	66.006	56.227	-12.672	1.00	2.00	lite
ATOM	426	CD	PRO	1047	64.815	56.983	-12.335	1.00	10.21	lite
ATOM	427	CA	PRO	1047	66.777	56.954	-13.689	1.00	2.00	lite
ATOM	428	CB	PRO	1047	65.814	58.063	-14.102	1.00	10.21	lite
ATOM	429	CG	PRO	1047	65.114	58.394	-12.834	1.00	10.21	lite
ATOM	430	C	PRO	1047	68.159	57.474	-13.276	1.00	2.00	lite
ATOM	431	O	PRO	1047	68.353	57.657	-12.091	1.00	10.21	lite
ATOM	432	N	PRO	1048	69.168	57.737	-14.071	1.00	2.00	lite
ATOM	433	CD	PRO	1048	69.236	57.318	-15.448	1.00	4.25	lite
ATOM	434	CA	PRO	1048	70.373	58.345	-13.598	1.00	2.00	lite
ATOM	435	CB	PRO	1048	71.053	58.593	-14.872	1.00	4.25	lite
ATOM	436	CG	PRO	1048	70.682	57.393	-15.713	1.00	4.25	lite
ATOM	437	C	PRO	1048	70.171	59.566	-12.698	1.00	2.00	lite
ATOM	438	O	PRO	1048	69.455	60.505	-12.992	1.00	4.25	lite
ATOM	439	N	LYS	1049	70.689	59.559	-11.490	1.00	10.94	lite
ATOM	441	CA	LYS	1049	70.632	60.726	-10.642	1.00	10.94	lite
ATOM	442	CB	LYS	1049	70.575	60.349	-9.190	1.00	20.93	lite
ATOM	443	CG	LYS	1049	70.196	61.544	-8.381	1.00	20.93	lite
ATOM	444	CD	LYS	1049	70.281	61.311	-6.897	1.00	20.93	lite
ATOM	445	CE	LYS	1049	69.941	62.693	-6.215	1.00	20.93	lite
ATOM	446	NZ	LYS	1049	70.114	62.849	-4.737	1.00	20.93	lite
ATOM	450	C	LYS	1049	71.919	61.492	-10.880	1.00	10.94	lite
ATOM	451	O	LYS	1049	73.003	60.896	-10.785	1.00	20.93	lite
ATOM	452	N	LEU	1050	71.851	62.779	-11.268	1.00	15.81	lite
ATOM	454	CA	LEU	1050	73.057	63.610	-11.319	1.00	15.81	lite
ATOM	455	CB	LEU	1050	72.754	64.926	-11.911	1.00	12.35	lite
ATOM	456	CG	LEU	1050	73.884	65.889	-11.909	1.00	12.35	lite
ATOM	457	CD1	LEU	1050	75.092	65.428	-12.674	1.00	12.35	lite
ATOM	458	CD2	LEU	1050	73.344	67.108	-12.548	1.00	12.35	lite
ATOM	459	C	LEU	1050	73.689	63.858	-9.941	1.00	15.81	lite
ATOM	460	O	LEU	1050	73.056	64.218	-8.942	1.00	12.35	lite
ATOM	461	N	LEU	1051	75.014	63.728	-9.927	1.00	19.37	lite
ATOM	463	CA	LEU	1051	75.795	63.781	-8.689	1.00	19.37	lite
ATOM	464	CB	LEU	1051	76.514	62.499	-8.622	1.00	21.74	lite
ATOM	465	CG	LEU	1051	76.561	61.495	-7.492	1.00	21.74	lite
ATOM	466	CD1	LEU	1051	75.173	61.157	-6.940	1.00	21.74	lite
ATOM	467	CD2	LEU	1051	77.332	60.268	-8.071	1.00	21.74	lite
ATOM	468	C	LEU	1051	76.784	64.925	-8.629	1.00	19.37	lite
ATOM	469	O	LEU	1051	76.856	65.705	-7.681	1.00	21.74	lite
ATOM	470	N	ILE	1052	77.568	64.982	-9.694	1.00	14.35	lite
ATOM	472	CA	ILE	1052	78.684	65.916	-9.835	1.00	14.35	lite
ATOM	473	CB	ILE	1052	80.034	65.232	-9.663	1.00	10.91	lite
ATOM	474	CG2	ILE	1052	81.114	66.174	-10.091	1.00	10.91	lite
ATOM	475	CG1	ILE	1052	80.290	64.878	-8.225	1.00	10.91	lite
ATOM	476	CD1	ILE	1052	81.498	63.954	-8.013	1.00	10.91	lite
ATOM	477	C	ILE	1052	78.687	66.484	-11.227	1.00	14.35	lite
ATOM	478	O	ILE	1052	78.740	65.693	-12.162	1.00	10.91	lite
ATOM	479	N	PHE	1053	78.629	67.768	-11.472	1.00	8.00	lite
ATOM	481	CA	PHE	1053	78.812	68.244	-12.833	1.00	8.00	lite
ATOM	482	CB	PHE	1053	77.681	69.159	-13.231	1.00	11.69	lite
ATOM	483	CG	PHE	1053	77.506	70.370	-12.352	1.00	11.69	lite
ATOM	484	CD1	PHE	1053	76.613	70.312	-11.307	1.00	11.69	lite
ATOM	485	CD2	PHE	1053	78.136	71.527	-12.673	1.00	11.69	lite
ATOM	486	CE1	PHE	1053	76.391	71.443	-10.587	1.00	11.69	lite
ATOM	487	CE2	PHE	1053	77.904	72.647	-11.952	1.00	11.69	lite
ATOM	488	CZ	PHE	1053	77.039	72.596	-10.910	1.00	11.69	lite
ATOM	489	C	PHE	1053	80.119	68.992	-12.950	1.00	8.00	lite
ATOM	490	O	PHE	1053	80.666	69.361	-11.913	1.00	11.69	lite
ATOM	491	N	ALA	1054	80.657	69.267	-14.130	1.00	2.00	lite

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ATOM	493	CA	ALA	1054	81.843	70.091	-14.322	1.00	2.00	lite
ATOM	494	CB	ALA	1054	81.554	71.512	-13.954	1.00	7.22	lite
ATOM	495	C	ALA	1054	83.071	69.691	-13.559	1.00	2.00	lite
ATOM	496	O	ALA	1054	83.869	70.510	-13.089	1.00	7.22	lite
ATOM	497	N	ALA	1055	83.174	68.361	-13.421	1.00	7.93	lite
ATOM	499	CA	ALA	1055	84.214	67.622	-12.720	1.00	7.93	lite
ATOM	500	CB	ALA	1055	85.570	68.089	-13.154	1.00	8.57	lite
ATOM	501	C	ALA	1055	84.206	67.655	-11.208	1.00	7.93	lite
ATOM	502	O	ALA	1055	84.329	66.618	-10.585	1.00	8.57	lite
ATOM	503	N	SER	1056	83.990	68.731	-10.489	1.00	9.33	lite
ATOM	505	CA	SER	1056	84.119	68.714	-9.020	1.00	9.33	lite
ATOM	506	CB	SER	1056	85.309	69.552	-8.594	1.00	22.71	lite
ATOM	507	OG	SER	1056	86.473	69.138	-9.306	1.00	22.71	lite
ATOM	509	C	SER	1056	82.943	69.180	-8.175	1.00	9.33	lite
ATOM	510	O	SER	1056	82.877	69.004	-6.939	1.00	22.71	lite
ATOM	511	N	THR	1057	81.959	69.743	-8.878	1.00	9.89	lite
ATOM	513	CA	THR	1057	80.852	70.311	-8.141	1.00	9.89	lite
ATOM	514	CB	THR	1057	80.433	71.663	-8.745	1.00	26.25	lite
ATOM	515	OG1	THR	1057	79.600	71.333	-9.835	1.00	26.25	lite
ATOM	517	OG2	THR	1057	81.591	72.529	-9.271	1.00	26.25	lite
ATOM	518	C	THR	1057	79.622	69.409	-8.023	1.00	9.89	lite
ATOM	519	O	THR	1057	79.111	68.741	-8.923	1.00	26.25	lite
ATOM	520	N	LEU	1058	79.292	69.318	-6.756	1.00	11.68	lite
ATOM	522	CA	LEU	1058	78.226	68.489	-6.269	1.00	11.68	lite
ATOM	523	CB	LEU	1058	78.406	68.130	-4.776	1.00	19.95	lite
ATOM	524	CG	LEU	1058	79.643	67.406	-4.259	1.00	19.95	lite
ATOM	525	CD1	LEU	1058	79.611	67.309	-2.775	1.00	19.95	lite
ATOM	526	CD2	LEU	1058	79.685	66.027	-4.819	1.00	19.95	lite
ATOM	527	C	LEU	1058	76.933	69.239	-6.425	1.00	11.68	lite
ATOM	528	O	LEU	1058	76.667	70.379	-6.055	1.00	19.95	lite
ATOM	529	N	GLU	1059	76.079	68.486	-7.030	1.00	15.65	lite
ATOM	531	CA	GLU	1059	74.739	68.942	-7.182	1.00	15.65	lite
ATOM	532	CB	GLU	1059	74.069	67.941	-8.116	1.00	32.64	lite
ATOM	533	CG	GLU	1059	72.535	67.856	-8.136	1.00	32.64	lite
ATOM	534	CD	GLU	1059	71.853	69.089	-8.701	1.00	32.64	lite
ATOM	535	OE1	GLU	1059	72.519	70.128	-8.861	1.00	32.64	lite
ATOM	536	OE2	GLU	1059	70.640	68.976	-8.973	1.00	32.64	lite
ATOM	537	C	GLU	1059	74.160	68.970	-5.767	1.00	15.65	lite
ATOM	538	O	GLU	1059	74.369	68.066	-4.938	1.00	32.64	lite
ATOM	539	N	SER	1060	73.485	70.057	-5.442	1.00	18.97	lite
ATOM	541	CA	SER	1060	72.811	70.206	-4.144	1.00	18.97	lite
ATOM	542	CB	SER	1060	71.917	71.446	-4.213	1.00	46.23	lite
ATOM	543	OG	SER	1060	71.496	71.811	-5.552	1.00	46.23	lite
ATOM	545	C	SER	1060	71.989	69.034	-3.611	1.00	18.97	lite
ATOM	546	O	SER	1060	71.442	68.220	-4.361	1.00	46.23	lite
ATOM	547	N	GLY	1061	71.868	68.798	-2.316	1.00	27.06	lite
ATOM	549	CA	GLY	1061	71.192	67.561	-1.912	1.00	27.06	lite
ATOM	550	C	GLY	1061	72.151	66.366	-1.963	1.00	27.06	lite
ATOM	551	O	GLY	1061	71.750	65.289	-1.532	1.00	33.66	lite
ATOM	552	N	ILE	1062	73.375	66.467	-2.521	1.00	12.97	lite
ATOM	554	CA	ILE	1062	74.359	65.403	-2.441	1.00	12.97	lite
ATOM	555	CB	ILE	1062	75.014	65.171	-3.848	1.00	13.22	lite
ATOM	556	CG2	ILE	1062	76.354	64.427	-3.744	1.00	13.22	lite
ATOM	557	CG1	ILE	1062	74.109	64.289	-4.694	1.00	13.22	lite
ATOM	558	CD1	ILE	1062	72.799	64.885	-5.201	1.00	13.22	lite
ATOM	559	C	ILE	1062	75.447	65.663	-1.378	1.00	12.97	lite
ATOM	560	O	ILE	1062	76.381	66.471	-1.456	1.00	13.22	lite
ATOM	561	N	PRO	1063	75.331	64.981	-0.279	1.00	19.81	lite
ATOM	562	CD	PRO	1063	74.116	64.370	0.187	1.00	29.90	lite
ATOM	563	CA	PRO	1063	76.428	64.523	0.531	1.00	19.81	lite
ATOM	564	CB	PRO	1063	76.059	63.077	0.798	1.00	29.90	lite
ATOM	565	CG	PRO	1063	74.609	63.292	1.166	1.00	29.90	lite
ATOM	566	C	PRO	1063	77.890	64.640	0.207	1.00	19.81	lite
ATOM	567	O	PRO	1063	78.478	63.873	-0.554	1.00	29.90	lite
ATOM	568	N	ALA	1064	78.446	65.515	1.036	1.00	23.29	lite
ATOM	570	CA	ALA	1064	79.883	65.850	1.126	1.00	23.29	lite
ATOM	571	CB	ALA	1064	80.181	66.473	2.488	1.00	25.15	lite

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ATOM	572	C	ALA	1064	80.929	64.756	0.944	1.00	23.29	lite
ATOM	573	O	ALA	1064	82.122	65.011	0.685	1.00	25.15	lite
ATOM	574	N	ARG	1065	80.420	63.525	1.161	1.00	8.63	lite
ATOM	576	CA	ARG	1065	81.335	62.424	1.037	1.00	8.63	lite
ATOM	577	CB	ARG	1065	80.854	61.329	1.966	1.00	15.80	lite
ATOM	578	CG	ARG	1065	79.781	60.450	1.388	1.00	15.80	lite
ATOM	579	CD	ARG	1065	79.760	59.079	2.008	1.00	15.80	lite
ATOM	580	NE	ARG	1065	78.639	58.351	1.484	1.00	15.80	lite
ATOM	582	CZ	ARG	1065	77.413	58.725	1.813	1.00	15.80	lite
ATOM	583	NH1	ARG	1065	77.207	59.755	2.623	1.00	15.80	lite
ATOM	586	NH2	ARG	1065	76.360	58.074	1.310	1.00	15.80	lite
ATOM	589	C	ARG	1065	81.562	61.886	-0.354	1.00	8.63	lite
ATOM	590	O	ARG	1065	82.101	60.786	-0.535	1.00	15.80	lite
ATOM	591	N	PHE	1066	80.994	62.636	-1.305	1.00	8.63	lite
ATOM	593	CA	PHE	1066	81.270	62.470	-2.724	1.00	8.63	lite
ATOM	594	CB	PHE	1066	80.004	62.486	-3.501	1.00	11.41	lite
ATOM	595	CG	PHE	1066	79.313	61.143	-3.379	1.00	11.41	lite
ATOM	596	CD1	PHE	1066	78.109	61.071	-2.715	1.00	11.41	lite
ATOM	597	CD2	PHE	1066	79.840	60.033	-3.986	1.00	11.41	lite
ATOM	598	CE1	PHE	1066	77.448	59.860	-2.636	1.00	11.41	lite
ATOM	599	CE2	PHE	1066	79.167	58.857	-3.913	1.00	11.41	lite
ATOM	600	CZ	PHE	1066	77.985	58.752	-3.245	1.00	11.41	lite
ATOM	601	C	PHE	1066	82.181	63.550	-3.282	1.00	8.63	lite
ATOM	602	O	PHE	1066	81.954	64.766	-3.143	1.00	11.41	lite
ATOM	603	N	SER	1067	83.286	63.147	-3.873	1.00	21.89	lite
ATOM	605	CA	SER	1067	84.134	64.165	-4.469	1.00	21.89	lite
ATOM	606	CB	SER	1067	85.389	64.359	-3.624	1.00	31.25	lite
ATOM	607	OG	SER	1067	86.038	63.120	-3.393	1.00	31.25	lite
ATOM	609	C	SER	1067	84.547	63.872	-5.919	1.00	21.89	lite
ATOM	610	O	SER	1067	84.777	62.700	-6.274	1.00	31.25	lite
ATOM	611	N	GLY	1068	84.617	64.872	-6.797	1.00	13.13	lite
ATOM	613	CA	GLY	1068	85.013	64.586	-8.142	1.00	13.13	lite
ATOM	614	C	GLY	1068	86.310	65.290	-8.458	1.00	13.13	lite
ATOM	615	O	GLY	1068	86.431	66.456	-8.096	1.00	30.50	lite
ATOM	616	N	ARG	1069	87.323	64.668	-9.072	1.00	17.47	lite
ATOM	618	CA	ARG	1069	88.551	65.360	-9.428	1.00	17.47	lite
ATOM	619	CB	ARG	1069	89.733	64.940	-8.549	1.00	54.18	lite
ATOM	620	CG	ARG	1069	89.661	64.748	-7.000	1.00	54.18	lite
ATOM	621	CD	ARG	1069	89.251	65.949	-6.051	1.00	54.18	lite
ATOM	622	NE	ARG	1069	90.196	67.089	-6.057	1.00	54.18	lite
ATOM	624	CZ	ARG	1069	89.971	68.274	-5.416	1.00	54.18	lite
ATOM	625	NH1	ARG	1069	88.832	68.494	-4.685	1.00	54.18	lite
ATOM	628	NH2	ARG	1069	90.869	69.298	-5.609	1.00	54.18	lite
ATOM	631	C	ARG	1069	88.916	64.971	-10.856	1.00	17.47	lite
ATOM	632	O	ARG	1069	88.383	64.033	-11.465	1.00	54.18	lite
ATOM	633	N	GLY	1070	89.853	65.710	-11.431	1.00	15.33	lite
ATOM	635	CA	GLY	1070	90.431	65.381	-12.726	1.00	15.33	lite
ATOM	636	C	GLY	1070	90.594	66.564	-13.676	1.00	15.33	lite
ATOM	637	O	GLY	1070	90.131	67.692	-13.513	1.00	11.99	lite
ATOM	638	N	SER	1071	91.278	66.249	-14.755	1.00	25.67	lite
ATOM	640	CA	SER	1071	91.495	67.196	-15.871	1.00	25.67	lite
ATOM	641	CB	SER	1071	92.587	68.223	-15.728	1.00	31.64	lite
ATOM	642	OG	SER	1071	92.000	69.232	-14.927	1.00	31.64	lite
ATOM	644	C	SER	1071	91.908	66.529	-17.134	1.00	25.67	lite
ATOM	645	O	SER	1071	92.424	65.403	-17.115	1.00	31.64	lite
ATOM	646	N	GLY	1072	91.654	67.250	-18.228	1.00	7.52	lite
ATOM	648	CA	GLY	1072	91.952	66.725	-19.535	1.00	7.52	lite
ATOM	649	C	GLY	1072	91.219	65.428	-19.825	1.00	7.52	lite
ATOM	650	O	GLY	1072	90.002	65.388	-19.848	1.00	15.25	lite
ATOM	651	N	THR	1073	91.915	64.353	-20.055	1.00	2.00	lite
ATOM	653	CA	THR	1073	91.248	63.100	-20.347	1.00	2.00	lite
ATOM	654	CB	THR	1073	91.979	62.301	-21.368	1.00	16.39	lite
ATOM	655	OG1	THR	1073	93.213	62.189	-20.748	1.00	16.39	lite
ATOM	657	CG2	THR	1073	92.284	62.916	-22.694	1.00	16.39	lite
ATOM	658	C	THR	1073	91.104	62.179	-19.161	1.00	2.00	lite
ATOM	659	O	THR	1073	90.594	61.077	-19.319	1.00	16.39	lite
ATOM	660	N	ASP	1074	91.569	62.521	-17.964	1.00	16.36	lite

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ATOM	662	CA	ASP	1074	91.503	61.616	-16.813	1.00	16.36	lite
ATOM	663	CB	ASP	1074	92.920	61.253	-16.358	1.00	21.24	lite
ATOM	664	CG	ASP	1074	93.800	60.345	-17.252	1.00	21.24	lite
ATOM	665	OD1	ASP	1074	94.873	59.941	-16.780	1.00	21.24	lite
ATOM	666	OD2	ASP	1074	93.475	60.004	-18.403	1.00	21.24	lite
ATOM	667	C	ASP	1074	90.734	62.171	-15.618	1.00	16.36	lite
ATOM	668	O	ASP	1074	91.088	63.252	-15.122	1.00	21.24	lite
ATOM	669	N	PHE	1075	89.647	61.530	-15.160	1.00	11.55	lite
ATOM	671	CA	PHE	1075	88.827	61.973	-14.013	1.00	11.55	lite
ATOM	672	CB	PHE	1075	87.522	62.523	-14.508	1.00	13.13	lite
ATOM	673	CG	PHE	1075	87.754	63.671	-15.436	1.00	13.13	lite
ATOM	674	CD1	PHE	1075	87.948	63.450	-16.753	1.00	13.13	lite
ATOM	675	CD2	PHE	1075	87.834	64.937	-14.927	1.00	13.13	lite
ATOM	676	CE1	PHE	1075	88.244	64.534	-17.544	1.00	13.13	lite
ATOM	677	CE2	PHE	1075	88.132	66.020	-15.731	1.00	13.13	lite
ATOM	678	CZ	PHE	1075	88.341	65.824	-17.053	1.00	13.13	lite
ATOM	679	C	PHE	1075	88.457	60.948	-12.925	1.00	11.55	lite
ATOM	680	O	PHE	1075	88.264	59.775	-13.275	1.00	13.13	lite
ATOM	681	N	THR	1076	88.312	61.221	-11.626	1.00	4.80	lite
ATOM	683	CA	THR	1076	87.842	60.190	-10.710	1.00	4.80	lite
ATOM	684	CB	THR	1076	88.914	59.661	-9.738	1.00	10.39	lite
ATOM	685	OG1	THR	1076	89.256	60.776	-8.961	1.00	10.39	lite
ATOM	687	CG2	THR	1076	90.223	59.215	-10.319	1.00	10.39	lite
ATOM	688	C	THR	1076	86.698	60.614	-9.801	1.00	4.80	lite
ATOM	689	O	THR	1076	86.554	61.798	-9.488	1.00	10.39	lite
ATOM	690	N	LEU	1077	85.864	59.632	-9.442	1.00	8.91	lite
ATOM	692	CA	LEU	1077	84.900	59.741	-8.362	1.00	8.91	lite
ATOM	693	CB	LEU	1077	83.590	59.087	-8.663	1.00	9.46	lite
ATOM	694	CG	LEU	1077	82.478	59.229	-7.640	1.00	9.46	lite
ATOM	695	CD1	LEU	1077	82.245	60.686	-7.351	1.00	9.46	lite
ATOM	696	CD2	LEU	1077	81.186	58.690	-8.183	1.00	9.46	lite
ATOM	697	C	LEU	1077	85.398	59.064	-7.092	1.00	8.91	lite
ATOM	698	O	LEU	1077	85.895	57.932	-7.078	1.00	9.46	lite
ATOM	699	N	ASN	1078	85.182	59.767	-5.977	1.00	13.15	lite
ATOM	701	CA	ASN	1078	85.586	59.280	-4.638	1.00	13.15	lite
ATOM	702	CB	ASN	1078	86.845	59.977	-4.069	1.00	29.42	lite
ATOM	703	CG	ASN	1078	88.156	59.832	-4.853	1.00	29.42	lite
ATOM	704	OD1	ASN	1078	88.472	60.547	-5.817	1.00	29.42	lite
ATOM	705	ND2	ASN	1078	89.040	58.936	-4.445	1.00	29.42	lite
ATOM	708	C	ASN	1078	84.573	59.437	-3.524	1.00	13.15	lite
ATOM	709	O	ASN	1078	84.348	60.539	-3.017	1.00	29.42	lite
ATOM	710	N	ILE	1079	83.995	58.280	-3.254	1.00	23.54	lite
ATOM	712	CA	ILE	1079	83.068	58.099	-2.148	1.00	23.54	lite
ATOM	713	CB	ILE	1079	81.988	56.933	-2.224	1.00	26.85	lite
ATOM	714	CG2	ILE	1079	80.812	57.303	-1.286	1.00	26.85	lite
ATOM	715	CG1	ILE	1079	81.293	56.727	-3.576	1.00	26.85	lite
ATOM	716	CD1	ILE	1079	82.173	56.180	-4.740	1.00	26.85	lite
ATOM	717	C	ILE	1079	83.900	57.685	-0.931	1.00	23.54	lite
ATOM	718	O	ILE	1079	84.364	56.552	-0.732	1.00	26.85	lite
ATOM	719	N	HIS	1080	84.315	58.617	-0.125	1.00	32.96	lite
ATOM	721	CA	HIS	1080	84.857	58.275	1.171	1.00	32.96	lite
ATOM	722	CB	HIS	1080	86.238	58.903	1.446	1.00	38.62	lite
ATOM	723	CG	HIS	1080	86.798	58.584	2.835	1.00	38.62	lite
ATOM	724	CD2	HIS	1080	87.112	59.506	3.833	1.00	38.62	lite
ATOM	725	ND1	HIS	1080	87.061	57.359	3.316	1.00	38.62	lite
ATOM	727	CE1	HIS	1080	87.528	57.457	4.556	1.00	38.62	lite
ATOM	728	NE2	HIS	1080	87.548	58.759	4.835	1.00	38.62	lite
ATOM	730	C	HIS	1080	83.877	58.956	2.097	1.00	32.96	lite
ATOM	731	O	HIS	1080	83.690	60.154	1.887	1.00	38.62	lite
ATOM	732	N	CPR	1081	83.161	58.450	3.145	1.00	27.25	lite
ATOM	733	CD	CPR	1081	82.866	59.453	4.144	1.00	16.10	lite
ATOM	734	CA	CPR	1081	83.130	57.081	3.733	1.00	27.25	lite
ATOM	735	CB	CPR	1081	82.854	57.255	5.240	1.00	16.10	lite
ATOM	736	CG	CPR	1081	82.469	58.721	5.416	1.00	16.10	lite
ATOM	737	C	CPR	1081	82.038	56.148	3.096	1.00	27.25	lite
ATOM	738	O	CPR	1081	80.860	56.480	3.091	1.00	16.10	lite
ATOM	739	N	VAL	1082	82.308	55.010	2.442	1.00	17.93	lite

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ATOM	741	CA	VAL	1082	81.250	54.323	1.725	1.00	17.93	lite
ATOM	742	CB	VAL	1082	81.783	53.068	1.036	1.00	17.30	lite
ATOM	743	CG1	VAL	1082	80.698	52.155	0.476	1.00	17.30	lite
ATOM	744	CG2	VAL	1082	82.636	53.557	-0.091	1.00	17.30	lite
ATOM	745	C	VAL	1082	80.155	53.934	2.695	1.00	17.93	lite
ATOM	746	O	VAL	1082	80.394	53.176	3.643	1.00	17.30	lite
ATOM	747	N	GLU	1083	79.047	54.650	2.565	1.00	18.44	lite
ATOM	749	CA	GLU	1083	77.882	54.432	3.410	1.00	18.44	lite
ATOM	750	CB	GLU	1083	77.242	55.759	3.426	1.00	38.46	lite
ATOM	751	CG	GLU	1083	76.252	55.970	4.536	1.00	38.46	lite
ATOM	752	CD	GLU	1083	76.885	55.957	5.922	1.00	38.46	lite
ATOM	753	OE1	GLU	1083	76.657	54.994	6.684	1.00	38.46	lite
ATOM	754	OE2	GLU	1083	77.588	56.929	6.218	1.00	38.46	lite
ATOM	755	C	GLU	1083	76.930	53.296	2.916	1.00	18.44	lite
ATOM	756	O	GLU	1083	76.963	52.979	1.725	1.00	38.46	lite
ATOM	757	N	GLU	1084	75.986	52.691	3.661	1.00	26.38	lite
ATOM	759	CA	GLU	1084	75.224	51.508	3.203	1.00	26.38	lite
ATOM	760	CB	GLU	1084	74.010	51.024	4.144	1.00	53.02	lite
ATOM	761	CG	GLU	1084	73.849	50.834	5.742	1.00	53.02	lite
ATOM	762	CD	GLU	1084	72.682	49.850	6.239	1.00	53.02	lite
ATOM	763	OE1	GLU	1084	72.780	49.146	7.289	1.00	53.02	lite
ATOM	764	OE2	GLU	1084	71.642	49.745	5.548	1.00	53.02	lite
ATOM	765	C	GLU	1084	74.569	51.845	1.859	1.00	26.38	lite
ATOM	766	O	GLU	1084	74.665	51.164	0.855	1.00	53.02	lite
ATOM	767	N	GLU	1085	74.093	53.060	1.728	1.00	23.30	lite
ATOM	769	CA	GLU	1085	73.370	53.538	0.557	1.00	23.30	lite
ATOM	770	CB	GLU	1085	72.675	54.857	0.850	1.00	47.71	lite
ATOM	771	CG	GLU	1085	71.817	54.976	2.074	1.00	47.71	lite
ATOM	772	CD	GLU	1085	72.707	55.174	3.290	1.00	47.71	lite
ATOM	773	OE1	GLU	1085	73.181	56.326	3.434	1.00	47.71	lite
ATOM	774	OE2	GLU	1085	72.942	54.177	4.026	1.00	47.71	lite
ATOM	775	C	GLU	1085	74.151	53.798	-0.738	1.00	23.30	lite
ATOM	776	O	GLU	1085	73.594	54.259	-1.747	1.00	47.71	lite
ATOM	777	N	ASP	1086	75.465	53.640	-0.775	1.00	19.53	lite
ATOM	779	CA	ASP	1086	76.080	53.980	-2.033	1.00	19.53	lite
ATOM	780	CB	ASP	1086	77.422	54.480	-1.618	1.00	14.76	lite
ATOM	781	CG	ASP	1086	77.171	55.763	-0.819	1.00	14.76	lite
ATOM	782	OD1	ASP	1086	78.009	56.008	0.035	1.00	14.76	lite
ATOM	783	OD2	ASP	1086	76.165	56.494	-1.012	1.00	14.76	lite
ATOM	784	C	ASP	1086	76.075	52.955	-3.136	1.00	19.53	lite
ATOM	785	O	ASP	1086	76.525	53.230	-4.243	1.00	14.76	lite
ATOM	786	N	ALA	1087	75.466	51.802	-2.855	1.00	23.14	lite
ATOM	788	CA	ALA	1087	75.341	50.700	-3.806	1.00	23.14	lite
ATOM	789	CB	ALA	1087	74.710	49.487	-3.136	1.00	24.82	lite
ATOM	790	C	ALA	1087	74.471	51.094	-4.999	1.00	23.14	lite
ATOM	791	O	ALA	1087	73.262	51.361	-4.893	1.00	24.82	lite
ATOM	792	N	ALA	1088	75.214	51.220	-6.094	1.00	13.23	lite
ATOM	794	CA	ALA	1088	74.699	51.692	-7.356	1.00	13.23	lite
ATOM	795	CB	ALA	1088	74.287	53.152	-7.186	1.00	12.26	lite
ATOM	796	C	ALA	1088	75.711	51.590	-8.523	1.00	13.23	lite
ATOM	797	O	ALA	1088	76.835	51.018	-8.453	1.00	12.26	lite
ATOM	798	N	THR	1089	75.286	52.164	-9.650	1.00	2.00	lite
ATOM	800	CA	THR	1089	76.211	52.289	-10.740	1.00	2.00	lite
ATOM	801	CB	THR	1089	75.667	51.762	-12.002	1.00	10.43	lite
ATOM	802	OG1	THR	1089	75.145	50.524	-11.601	1.00	10.43	lite
ATOM	804	CG2	THR	1089	76.664	51.352	-13.052	1.00	10.43	lite
ATOM	805	C	THR	1089	76.543	53.714	-10.963	1.00	2.00	lite
ATOM	806	O	THR	1089	75.738	54.642	-10.850	1.00	10.43	lite
ATOM	807	N	TYR	1090	77.832	53.888	-11.153	1.00	13.42	lite
ATOM	809	CA	TYR	1090	78.303	55.219	-11.464	1.00	13.42	lite
ATOM	810	CB	TYR	1090	79.349	55.609	-10.461	1.00	7.10	lite
ATOM	811	CG	TYR	1090	78.769	55.596	-9.054	1.00	7.10	lite
ATOM	812	CD1	TYR	1090	78.356	56.776	-8.502	1.00	7.10	lite
ATOM	813	CE1	TYR	1090	77.814	56.774	-7.257	1.00	7.10	lite
ATOM	814	CD2	TYR	1090	78.643	54.407	-8.365	1.00	7.10	lite
ATOM	815	CE2	TYR	1090	78.105	54.411	-7.121	1.00	7.10	lite
ATOM	816	CZ	TYR	1090	77.700	55.595	-6.595	1.00	7.10	lite

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ATOM	817	OH	TYR	1090	77.170	55.602	-5.338	1.00	7.10	lite
ATOM	819	C	TYR	1090	78.841	55.226	-12.880	1.00	13.42	lite
ATOM	820	O	TYR	1090	79.603	54.310	-13.289	1.00	7.10	lite
ATOM	821	N	TYR	1091	78.205	56.185	-13.607	1.00	9.10	lite
ATOM	823	CA	TYR	1091	78.482	56.483	-15.021	1.00	9.10	lite
ATOM	824	CB	TYR	1091	77.293	56.658	-15.890	1.00	16.72	lite
ATOM	825	CG	TYR	1091	76.367	55.462	-15.871	1.00	16.72	lite
ATOM	826	CD1	TYR	1091	75.225	55.532	-15.094	1.00	16.72	lite
ATOM	827	CE1	TYR	1091	74.382	54.462	-15.031	1.00	16.72	lite
ATOM	828	CD2	TYR	1091	76.684	54.326	-16.603	1.00	16.72	lite
ATOM	829	CE2	TYR	1091	75.837	53.255	-16.535	1.00	16.72	lite
ATOM	830	CZ	TYR	1091	74.697	53.338	-15.751	1.00	16.72	lite
ATOM	831	OH	TYR	1091	73.811	52.266	-15.696	1.00	16.72	lite
ATOM	833	C	TYR	1091	79.127	57.823	-15.150	1.00	9.10	lite
ATOM	834	O	TYR	1091	78.733	58.718	-14.412	1.00	16.72	lite
ATOM	835	N	CYS	1092	80.093	58.048	-15.998	1.00	6.50	lite
ATOM	837	CA	CYS	1092	80.481	59.426	-16.238	1.00	6.50	lite
ATOM	838	C	CYS	1092	79.990	59.833	-17.610	1.00	6.50	lite
ATOM	839	O	CYS	1092	79.912	58.990	-18.477	1.00	14.68	lite
ATOM	840	CB	CYS	1092	81.983	59.616	-16.196	1.00	14.68	lite
ATOM	841	SC	CYS	1092	82.897	58.282	-16.970	1.00	14.68	lite
ATOM	842	N	GLN	1093	79.531	61.045	-17.894	1.00	15.09	lite
ATOM	844	CA	GLN	1093	79.239	61.436	-19.268	1.00	15.09	lite
ATOM	845	CB	GLN	1093	77.727	61.514	-19.565	1.00	11.32	lite
ATOM	846	CG	GLN	1093	77.012	62.602	-18.916	1.00	11.32	lite
ATOM	847	CD	GLN	1093	76.782	63.860	-19.729	1.00	11.32	lite
ATOM	848	OE1	GLN	1093	77.101	63.953	-20.893	1.00	11.32	lite
ATOM	849	NE2	GLN	1093	76.226	64.946	-19.234	1.00	11.32	lite
ATOM	852	C	GLN	1093	79.874	62.776	-19.635	1.00	15.09	lite
ATOM	853	O	GLN	1093	80.057	63.671	-18.796	1.00	11.32	lite
ATOM	854	N	GLN	1094	80.244	62.941	-20.889	1.00	9.68	lite
ATOM	856	CA	GLN	1094	80.827	64.178	-21.266	1.00	9.68	lite
ATOM	857	CB	GLN	1094	82.133	63.944	-22.020	1.00	12.83	lite
ATOM	858	CG	GLN	1094	82.124	63.177	-23.283	1.00	12.83	lite
ATOM	859	CD	GLN	1094	81.618	63.965	-24.452	1.00	12.83	lite
ATOM	860	OE1	GLN	1094	81.773	65.183	-24.533	1.00	12.83	lite
ATOM	861	NE2	GLN	1094	80.924	63.332	-25.349	1.00	12.83	lite
ATOM	864	C	GLN	1094	79.905	65.043	-22.075	1.00	9.68	lite
ATOM	865	O	GLN	1094	79.110	64.633	-22.920	1.00	12.83	lite
ATOM	866	N	SER	1095	80.089	66.309	-21.743	1.00	16.09	lite
ATOM	868	CA	SER	1095	79.362	67.412	-22.340	1.00	16.09	lite
ATOM	869	CB	SER	1095	78.736	68.255	-21.222	1.00	13.88	lite
ATOM	870	OG	SER	1095	77.773	67.669	-20.344	1.00	13.88	lite
ATOM	872	C	SER	1095	80.368	68.247	-23.153	1.00	16.09	lite
ATOM	873	O	SER	1095	80.159	69.424	-23.437	1.00	13.88	lite
ATOM	874	N	HIS	1096	81.524	67.766	-23.581	1.00	5.23	lite
ATOM	876	CA	HIS	1096	82.422	68.621	-24.306	1.00	5.23	lite
ATOM	877	CB	HIS	1096	83.755	68.014	-24.396	1.00	7.05	lite
ATOM	878	CG	HIS	1096	84.776	68.874	-25.084	1.00	7.05	lite
ATOM	879	CD2	HIS	1096	85.200	68.661	-26.358	1.00	7.05	lite
ATOM	880	ND1	HIS	1096	85.441	69.909	-24.582	1.00	7.05	lite
ATOM	882	CE1	HIS	1096	86.269	70.325	-25.490	1.00	7.05	lite
ATOM	883	NE2	HIS	1096	86.096	69.565	-26.540	1.00	7.05	lite
ATOM	885	C	HIS	1096	81.919	68.843	-25.695	1.00	5.23	lite
ATOM	886	O	HIS	1096	82.221	69.845	-26.316	1.00	7.05	lite
ATOM	887	N	GLU	1097	81.223	67.900	-26.250	1.00	2.00	lite
ATOM	889	CA	GLU	1097	80.708	68.074	-27.592	1.00	2.00	lite
ATOM	890	CB	GLU	1097	81.701	67.693	-28.626	1.00	9.51	lite
ATOM	891	CG	GLU	1097	82.064	66.258	-28.318	1.00	9.51	lite
ATOM	892	CD	GLU	1097	83.023	65.755	-29.322	1.00	9.51	lite
ATOM	893	OE1	GLU	1097	82.722	64.748	-29.951	1.00	9.51	lite
ATOM	894	OE2	GLU	1097	84.061	66.389	-29.478	1.00	9.51	lite
ATOM	895	C	GLU	1097	79.506	67.211	-27.855	1.00	2.00	lite
ATOM	896	O	GLU	1097	79.297	66.240	-27.142	1.00	9.51	lite
ATOM	897	N	ASP	1098	78.721	67.537	-28.862	1.00	21.82	lite
ATOM	899	CA	ASP	1098	77.640	66.667	-29.287	1.00	21.82	lite
ATOM	900	CB	ASP	1098	76.488	67.360	-29.919	1.00	14.85	lite

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ATOM	901	CG	ASP	1098	75.617	68.195	-29.030	1.00	14.85	lite
ATOM	902	OD1	ASP	1098	74.956	69.058	-29.593	1.00	14.85	lite
ATOM	903	OD2	ASP	1098	75.586	68.000	-27.812	1.00	14.85	lite
ATOM	904	C	ASP	1098	78.152	65.768	-30.384	1.00	21.82	lite
ATOM	905	O	ASP	1098	78.807	66.302	-31.276	1.00	14.85	lite
ATOM	906	N	CPR	1099	77.926	64.474	-30.448	1.00	2.00	lite
ATOM	907	CD	CPR	1099	78.400	63.653	-31.558	1.00	8.50	lite
ATOM	908	CA	CPR	1099	77.170	63.709	-29.505	1.00	2.00	lite
ATOM	909	CB	CPR	1099	77.060	62.380	-30.176	1.00	8.50	lite
ATOM	910	CG	CPR	1099	78.374	62.292	-30.924	1.00	8.50	lite
ATOM	911	C	CPR	1099	77.724	63.600	-28.101	1.00	2.00	lite
ATOM	912	O	CPR	1099	78.901	63.317	-27.903	1.00	8.50	lite
ATOM	913	N	LEU	1100	76.867	63.824	-27.123	1.00	5.12	lite
ATOM	915	CA	LEU	1100	77.145	63.585	-25.711	1.00	5.12	lite
ATOM	916	CB	LEU	1100	75.988	63.998	-24.898	1.00	2.00	lite
ATOM	917	CG	LEU	1100	75.800	65.332	-24.348	1.00	2.00	lite
ATOM	918	CD1	LEU	1100	76.627	66.367	-25.048	1.00	2.00	lite
ATOM	919	CD2	LEU	1100	74.322	65.551	-24.401	1.00	2.00	lite
ATOM	920	C	LEU	1100	77.359	62.089	-25.444	1.00	5.12	lite
ATOM	921	O	LEU	1100	76.566	61.277	-25.870	1.00	2.00	lite
ATOM	922	N	THR	1101	78.390	61.563	-24.818	1.00	23.57	lite
ATOM	924	CA	THR	1101	78.548	60.099	-24.611	1.00	23.57	lite
ATOM	925	CB	THR	1101	79.794	59.544	-25.398	1.00	19.39	lite
ATOM	926	OG1	THR	1101	80.947	60.290	-25.056	1.00	19.39	lite
ATOM	928	CG2	THR	1101	79.724	59.752	-26.874	1.00	19.39	lite
ATOM	929	C	THR	1101	78.691	59.623	-23.141	1.00	23.57	lite
ATOM	930	O	THR	1101	79.192	60.355	-22.308	1.00	19.39	lite
ATOM	931	N	PHE	1102	78.261	58.454	-22.711	1.00	2.00	lite
ATOM	933	CA	PHE	1102	78.392	57.953	-21.373	1.00	2.00	lite
ATOM	934	CB	PHE	1102	77.122	57.350	-20.935	1.00	2.00	lite
ATOM	935	CG	PHE	1102	75.979	58.273	-20.622	1.00	2.00	lite
ATOM	936	CD1	PHE	1102	75.226	58.802	-21.651	1.00	2.00	lite
ATOM	937	CD2	PHE	1102	75.719	58.541	-19.294	1.00	2.00	lite
ATOM	938	CE1	PHE	1102	74.182	59.629	-21.336	1.00	2.00	lite
ATOM	939	CE2	PHE	1102	74.679	59.365	-18.994	1.00	2.00	lite
ATOM	940	CZ	PHE	1102	73.924	59.904	-20.010	1.00	2.00	lite
ATOM	941	C	PHE	1102	79.447	56.865	-21.284	1.00	2.00	lite
ATOM	942	O	PHE	1102	79.823	56.260	-22.289	1.00	2.00	lite
ATOM	943	N	GLY	1103	79.994	56.626	-20.105	1.00	2.00	lite
ATOM	945	CA	GLY	1103	80.860	55.506	-19.857	1.00	2.00	lite
ATOM	946	C	GLY	1103	79.966	54.297	-19.669	1.00	2.00	lite
ATOM	947	O	GLY	1103	78.722	54.429	-19.587	1.00	26.70	lite
ATOM	948	N	ALA	1104	80.491	53.077	-19.563	1.00	10.71	lite
ATOM	950	CA	ALA	1104	79.594	51.921	-19.387	1.00	10.71	lite
ATOM	951	CB	ALA	1104	80.192	50.665	-20.012	1.00	11.04	lite
ATOM	952	C	ALA	1104	79.207	51.571	-17.949	1.00	10.71	lite
ATOM	953	O	ALA	1104	78.380	50.699	-17.670	1.00	11.04	lite
ATOM	954	N	GLY	1105	79.759	52.331	-17.025	1.00	4.17	lite
ATOM	956	CA	GLY	1105	79.361	52.185	-15.660	1.00	4.17	lite
ATOM	957	C	GLY	1105	80.259	51.336	-14.843	1.00	4.17	lite
ATOM	958	O	GLY	1105	81.045	50.544	-15.371	1.00	11.04	lite
ATOM	959	N	THR	1106	80.126	51.653	-13.545	1.00	16.46	lite
ATOM	961	CA	THR	1106	80.938	50.951	-12.553	1.00	16.46	lite
ATOM	962	CB	THR	1106	82.140	51.790	-12.044	1.00	15.02	lite
ATOM	963	OG1	THR	1106	83.023	52.021	-13.132	1.00	15.02	lite
ATOM	965	CG2	THR	1106	82.859	51.098	-10.905	1.00	15.02	lite
ATOM	966	C	THR	1106	80.070	50.621	-11.366	1.00	16.46	lite
ATOM	967	O	THR	1106	79.560	51.501	-10.666	1.00	15.02	lite
ATOM	968	N	LYS	1107	79.920	49.322	-11.178	1.00	15.95	lite
ATOM	970	CA	LYS	1107	79.112	48.780	-10.110	1.00	15.95	lite
ATOM	971	CB	LYS	1107	78.665	47.422	-10.507	1.00	24.46	lite
ATOM	972	CG	LYS	1107	77.212	47.136	-10.247	1.00	24.46	lite
ATOM	973	CD	LYS	1107	76.773	46.112	-11.335	1.00	24.46	lite
ATOM	974	CE	LYS	1107	76.777	46.447	-12.915	1.00	24.46	lite
ATOM	975	NZ	LYS	1107	78.092	46.362	-13.546	1.00	24.46	lite
ATOM	979	C	LYS	1107	79.775	48.686	-8.758	1.00	15.95	lite
ATOM	980	O	LYS	1107	80.771	47.986	-8.580	1.00	24.46	lite

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ATOM	981	N	LEU	1108	79.239	49.359	-7.775	1.00	14.47	lite
ATOM	983	CA	LEU	1108	79.878	49.267	-6.472	1.00	14.47	lite
ATOM	984	CB	LEU	1108	79.904	50.712	-5.852	1.00	16.63	lite
ATOM	985	CG	LEU	1108	80.394	50.960	-4.419	1.00	16.63	lite
ATOM	986	CD1	LEU	1108	81.914	50.823	-4.291	1.00	16.63	lite
ATOM	987	CD2	LEU	1108	80.027	52.349	-4.032	1.00	16.63	lite
ATOM	988	C	LEU	1108	79.191	48.239	-5.554	1.00	14.47	lite
ATOM	989	O	LEU	1108	78.059	48.446	-5.117	1.00	16.63	lite
ATOM	990	N	GLU	1109	79.782	47.079	-5.268	1.00	22.54	lite
ATOM	992	CA	GLU	1109	79.166	46.121	-4.352	1.00	22.54	lite
ATOM	993	CB	GLU	1109	79.450	44.672	-4.812	1.00	36.27	lite
ATOM	994	CG	GLU	1109	80.026	43.598	-3.808	1.00	36.27	lite
ATOM	995	CD	GLU	1109	80.558	42.295	-4.446	1.00	36.27	lite
ATOM	996	OE1	GLU	1109	80.125	41.211	-4.013	1.00	36.27	lite
ATOM	997	OE2	GLU	1109	81.397	42.380	-5.365	1.00	36.27	lite
ATOM	998	C	GLU	1109	79.758	46.354	-2.969	1.00	22.54	lite
ATOM	999	O	GLU	1109	80.981	46.363	-2.810	1.00	36.27	lite
ATOM	1000	N	LEU	1110	78.901	46.635	-1.986	1.00	26.28	lite
ATOM	1002	CA	LEU	1110	79.302	46.698	-0.600	1.00	26.28	lite
ATOM	1003	CB	LEU	1110	78.166	47.326	0.212	1.00	20.57	lite
ATOM	1004	CG	LEU	1110	78.173	48.871	0.328	1.00	20.57	lite
ATOM	1005	CD1	LEU	1110	77.601	49.549	-0.914	1.00	20.57	lite
ATOM	1006	CD2	LEU	1110	77.232	49.282	1.439	1.00	20.57	lite
ATOM	1007	C	LEU	1110	79.630	45.275	-0.096	1.00	26.28	lite
ATOM	1008	O	LEU	1110	78.883	44.282	-0.332	1.00	20.57	lite
ATOM	1009	N	ARG	1111	80.813	45.101	0.554	1.00	27.53	lite
ATOM	1011	CA	ARG	1111	81.162	43.794	1.168	1.00	27.53	lite
ATOM	1012	CB	ARG	1111	82.675	43.636	1.370	1.00	40.65	lite
ATOM	1013	CG	ARG	1111	83.392	43.269	0.069	1.00	40.65	lite
ATOM	1014	CD	ARG	1111	84.924	43.501	0.091	1.00	40.65	lite
ATOM	1015	NE	ARG	1111	85.614	42.622	-0.886	1.00	40.65	lite
ATOM	1017	CZ	ARG	1111	86.826	42.878	-1.531	1.00	40.65	lite
ATOM	1018	NH1	ARG	1111	87.600	44.018	-1.378	1.00	40.65	lite
ATOM	1021	NH2	ARG	1111	87.316	41.898	-2.348	1.00	40.65	lite
ATOM	1024	C	ARG	1111	80.470	43.674	2.536	1.00	27.53	lite
ATOM	1025	O	ARG	1111	80.507	44.568	3.394	1.00	40.65	lite
ATOM	1026	N	ARG	1112	79.656	42.640	2.720	1.00	21.62	lite
ATOM	1028	CA	ARG	1112	78.899	42.426	3.978	1.00	21.62	lite
ATOM	1029	CB	ARG	1112	77.555	41.800	3.639	1.00	18.31	lite
ATOM	1030	CG	ARG	1112	76.578	41.749	4.756	1.00	18.31	lite
ATOM	1031	CD	ARG	1112	75.919	40.423	4.659	1.00	18.31	lite
ATOM	1032	NE	ARG	1112	75.937	39.807	5.960	1.00	18.31	lite
ATOM	1034	CZ	ARG	1112	74.943	39.987	6.816	1.00	18.31	lite
ATOM	1035	NH1	ARG	1112	73.879	40.753	6.551	1.00	18.31	lite
ATOM	1038	NH2	ARG	1112	74.958	39.319	7.954	1.00	18.31	lite
ATOM	1041	C	ARG	1112	79.735	41.468	4.825	1.00	21.62	lite
ATOM	1042	O	ARG	1112	80.938	41.352	4.589	1.00	18.31	lite
ATOM	1043	N	ALA	1113	79.258	40.715	5.801	1.00	13.63	lite
ATOM	1045	CA	ALA	1113	80.165	39.806	6.454	1.00	13.63	lite
ATOM	1046	CB	ALA	1113	79.684	39.592	7.877	1.00	22.15	lite
ATOM	1047	C	ALA	1113	80.025	38.582	5.580	1.00	13.63	lite
ATOM	1048	O	ALA	1113	80.425	38.641	4.440	1.00	22.15	lite
ATOM	1049	N	ASP	1114	79.344	37.523	5.953	1.00	17.93	lite
ATOM	1051	CA	ASP	1114	79.290	36.284	5.215	1.00	17.93	lite
ATOM	1052	CB	ASP	1114	80.487	35.479	5.500	1.00	25.53	lite
ATOM	1053	CG	ASP	1114	81.221	34.907	4.324	1.00	25.53	lite
ATOM	1054	OD1	ASP	1114	81.664	35.682	3.474	1.00	25.53	lite
ATOM	1055	OD2	ASP	1114	81.404	33.692	4.326	1.00	25.53	lite
ATOM	1056	C	ASP	1114	78.103	35.600	5.834	1.00	17.93	lite
ATOM	1057	O	ASP	1114	77.899	35.598	7.063	1.00	25.53	lite
ATOM	1058	N	ALA	1115	77.380	34.934	4.955	1.00	22.75	lite
ATOM	1060	CA	ALA	1115	76.068	34.467	5.360	1.00	22.75	lite
ATOM	1061	CB	ALA	1115	74.993	35.575	5.294	1.00	25.98	lite
ATOM	1062	C	ALA	1115	75.616	33.395	4.426	1.00	22.75	lite
ATOM	1063	O	ALA	1115	75.875	33.324	3.205	1.00	25.98	lite
ATOM	1064	N	ALA	1116	74.948	32.530	5.157	1.00	24.46	lite
ATOM	1066	CA	ALA	1116	74.395	31.365	4.529	1.00	24.46	lite

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ATOM	1067	CB	ALA	1116	74.337	30.246	5.485	1.00	43.69	lite
ATOM	1068	C	ALA	1116	72.991	31.600	4.045	1.00	24.46	lite
ATOM	1069	O	ALA	1116	72.167	32.190	4.765	1.00	43.69	lite
ATOM	1070	N	PRO	1117	72.701	31.144	2.832	1.00	11.75	lite
ATOM	1071	CD	PRO	1117	73.622	30.548	1.898	1.00	22.48	lite
ATOM	1072	CA	PRO	1117	71.359	31.100	2.358	1.00	11.75	lite
ATOM	1073	CB	PRO	1117	71.581	30.524	0.974	1.00	22.48	lite
ATOM	1074	CG	PRO	1117	72.728	29.600	1.149	1.00	22.48	lite
ATOM	1075	C	PRO	1117	70.324	30.375	3.251	1.00	11.75	lite
ATOM	1076	O	PRO	1117	70.573	29.441	4.001	1.00	22.48	lite
ATOM	1077	N	THR	1118	69.123	30.887	3.254	1.00	8.58	lite
ATOM	1079	CA	THR	1118	67.991	30.235	3.860	1.00	8.58	lite
ATOM	1080	CB	THR	1118	67.033	31.229	4.446	1.00	18.93	lite
ATOM	1081	OG1	THR	1118	67.631	31.985	5.511	1.00	18.93	lite
ATOM	1083	CG2	THR	1118	65.810	30.451	4.867	1.00	18.93	lite
ATOM	1084	C	THR	1118	67.305	29.587	2.680	1.00	8.58	lite
ATOM	1085	O	THR	1118	66.816	30.336	1.831	1.00	18.93	lite
ATOM	1086	N	VAL	1119	67.230	28.262	2.560	1.00	12.36	lite
ATOM	1088	CA	VAL	1119	66.628	27.605	1.379	1.00	12.36	lite
ATOM	1089	CB	VAL	1119	67.441	26.378	0.938	1.00	10.55	lite
ATOM	1090	CG1	VAL	1119	67.036	25.933	-0.434	1.00	10.55	lite
ATOM	1091	CG2	VAL	1119	68.904	26.743	0.814	1.00	10.55	lite
ATOM	1092	C	VAL	1119	65.193	27.141	1.577	1.00	12.36	lite
ATOM	1093	O	VAL	1119	64.810	26.614	2.624	1.00	10.55	lite
ATOM	1094	N	SER	1120	64.344	27.266	0.581	1.00	2.00	lite
ATOM	1096	CA	SER	1120	62.964	26.881	0.726	1.00	2.00	lite
ATOM	1097	CB	SER	1120	62.065	28.059	0.783	1.00	14.54	lite
ATOM	1098	OG	SER	1120	62.635	28.996	1.670	1.00	14.54	lite
ATOM	1100	C	SER	1120	62.560	26.104	-0.468	1.00	2.00	lite
ATOM	1101	O	SER	1120	62.863	26.601	-1.533	1.00	14.54	lite
ATOM	1102	N	ILE	1121	61.966	24.902	-0.406	1.00	12.54	lite
ATOM	1104	CA	ILE	1121	61.431	24.270	-1.596	1.00	12.54	lite
ATOM	1105	CB	ILE	1121	61.957	22.784	-1.714	1.00	11.72	lite
ATOM	1106	CG2	ILE	1121	61.112	21.749	-1.039	1.00	11.72	lite
ATOM	1107	CG1	ILE	1121	61.974	22.464	-3.193	1.00	11.72	lite
ATOM	1108	CD1	ILE	1121	62.413	21.052	-3.593	1.00	11.72	lite
ATOM	1109	C	ILE	1121	59.882	24.373	-1.545	1.00	12.54	lite
ATOM	1110	O	ILE	1121	59.160	24.448	-0.531	1.00	11.72	lite
ATOM	1111	N	PHE	1122	59.329	24.496	-2.730	1.00	9.36	lite
ATOM	1113	CA	PHE	1122	57.920	24.654	-2.975	1.00	9.36	lite
ATOM	1114	CB	PHE	1122	57.757	25.995	-3.568	1.00	13.31	lite
ATOM	1115	CG	PHE	1122	57.856	26.969	-2.440	1.00	13.31	lite
ATOM	1116	CD1	PHE	1122	56.768	27.143	-1.615	1.00	13.31	lite
ATOM	1117	CD2	PHE	1122	59.025	27.662	-2.255	1.00	13.31	lite
ATOM	1118	CE1	PHE	1122	56.880	28.037	-0.588	1.00	13.31	lite
ATOM	1119	CE2	PHE	1122	59.109	28.560	-1.217	1.00	13.31	lite
ATOM	1120	CZ	PHE	1122	58.037	28.743	-0.388	1.00	13.31	lite
ATOM	1121	C	PHE	1122	57.504	23.568	-3.933	1.00	9.36	lite
ATOM	1122	O	PHE	1122	58.192	23.419	-4.932	1.00	13.31	lite
ATOM	1123	N	PRO	1123	56.546	22.706	-3.752	1.00	2.00	lite
ATOM	1124	CD	PRO	1123	56.236	22.191	-2.460	1.00	2.00	lite
ATOM	1125	CA	PRO	1123	56.070	21.846	-4.804	1.00	2.00	lite
ATOM	1126	CB	PRO	1123	55.571	20.709	-4.016	1.00	2.00	lite
ATOM	1127	CG	PRO	1123	55.139	21.260	-2.737	1.00	2.00	lite
ATOM	1128	C	PRO	1123	55.060	22.548	-5.688	1.00	2.00	lite
ATOM	1129	O	PRO	1123	54.596	23.600	-5.264	1.00	2.00	lite
ATOM	1130	N	PRO	1124	54.671	22.095	-6.881	1.00	15.53	lite
ATOM	1131	CD	PRO	1124	54.925	20.772	-7.379	1.00	18.17	lite
ATOM	1132	CA	PRO	1124	53.603	22.670	-7.681	1.00	15.53	lite
ATOM	1133	CB	PRO	1124	53.399	21.727	-8.814	1.00	18.17	lite
ATOM	1134	CG	PRO	1124	54.658	20.973	-8.841	1.00	18.17	lite
ATOM	1135	C	PRO	1124	52.261	22.942	-6.961	1.00	15.53	lite
ATOM	1136	O	PRO	1124	51.791	22.283	-6.019	1.00	18.17	lite
ATOM	1137	N	SER	1125	51.605	24.003	-7.376	1.00	26.48	lite
ATOM	1139	CA	SER	1125	50.337	24.270	-6.791	1.00	26.48	lite
ATOM	1140	CB	SER	1125	50.071	25.752	-6.885	1.00	23.73	lite
ATOM	1141	OG	SER	1125	50.076	26.147	-8.265	1.00	23.73	lite

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ATOM	1143	C	SER	1125	49.307	23.460	-7.571	1.00	26.48	lite
ATOM	1144	O	SER	1125	49.269	23.322	-8.794	1.00	23.73	lite
ATOM	1145	N	SER	1126	48.446	22.884	-6.784	1.00	12.04	lite
ATOM	1147	CA	SER	1126	47.175	22.276	-7.169	1.00	12.04	lite
ATOM	1148	CB	SER	1126	46.368	22.376	-5.909	1.00	24.68	lite
ATOM	1149	OG	SER	1126	46.945	23.351	-4.960	1.00	24.68	lite
ATOM	1151	C	SER	1126	46.534	23.018	-8.343	1.00	12.04	lite
ATOM	1152	O	SER	1126	46.273	22.532	-9.425	1.00	24.68	lite
ATOM	1153	N	GLU	1127	46.504	24.334	-8.147	1.00	13.70	lite
ATOM	1155	CA	GLU	1127	45.987	25.328	-9.066	1.00	13.70	lite
ATOM	1156	CB	GLU	1127	46.065	26.751	-8.317	1.00	29.90	lite
ATOM	1157	CG	GLU	1127	45.131	27.188	-7.095	1.00	29.90	lite
ATOM	1158	CD	GLU	1127	45.615	27.184	-5.615	1.00	29.90	lite
ATOM	1159	OE1	GLU	1127	46.546	26.429	-5.327	1.00	29.90	lite
ATOM	1160	OE2	GLU	1127	45.085	27.900	-4.726	1.00	29.90	lite
ATOM	1161	C	GLU	1127	46.798	25.256	-10.378	1.00	13.70	lite
ATOM	1162	O	GLU	1127	46.168	25.291	-11.436	1.00	29.90	lite
ATOM	1163	N	GLN	1128	48.145	25.107	-10.456	1.00	2.00	lite
ATOM	1165	CA	GLN	1128	48.851	24.935	-11.741	1.00	2.00	lite
ATOM	1166	CB	GLN	1128	50.322	25.118	-11.633	1.00	10.07	lite
ATOM	1167	CG	GLN	1128	51.084	25.005	-12.960	1.00	10.07	lite
ATOM	1168	CD	GLN	1128	52.569	25.184	-12.796	1.00	10.07	lite
ATOM	1169	OE1	GLN	1128	53.124	25.076	-11.720	1.00	10.07	lite
ATOM	1170	NE2	GLN	1128	53.294	25.424	-13.857	1.00	10.07	lite
ATOM	1173	C	GLN	1128	48.714	23.572	-12.342	1.00	2.00	lite
ATOM	1174	O	GLN	1128	48.606	23.414	-13.528	1.00	10.07	lite
ATOM	1175	N	LEU	1129	48.798	22.526	-11.562	1.00	7.81	lite
ATOM	1177	CA	LEU	1129	48.687	21.168	-12.069	1.00	7.81	lite
ATOM	1178	CB	LEU	1129	48.710	20.176	-10.912	1.00	12.44	lite
ATOM	1179	CG	LEU	1129	49.989	20.111	-10.138	1.00	12.44	lite
ATOM	1180	CD1	LEU	1129	49.771	19.257	-8.929	1.00	12.44	lite
ATOM	1181	CD2	LEU	1129	51.104	19.509	-10.994	1.00	12.44	lite
ATOM	1182	C	LEU	1129	47.450	20.888	-12.903	1.00	7.81	lite
ATOM	1183	O	LEU	1129	47.452	20.196	-13.913	1.00	12.44	lite
ATOM	1184	N	THR	1130	46.345	21.475	-12.537	1.00	19.23	lite
ATOM	1186	CA	THR	1130	45.123	21.228	-13.263	1.00	19.23	lite
ATOM	1187	CB	THR	1130	44.068	21.987	-12.467	1.00	28.96	lite
ATOM	1188	OG1	THR	1130	44.139	21.376	-11.162	1.00	28.96	lite
ATOM	1190	CG2	THR	1130	42.693	21.994	-13.081	1.00	28.96	lite
ATOM	1191	C	THR	1130	45.222	21.628	-14.735	1.00	19.23	lite
ATOM	1192	O	THR	1130	44.532	21.112	-15.622	1.00	28.96	lite
ATOM	1193	N	SER	1131	46.159	22.512	-15.075	1.00	24.82	lite
ATOM	1195	CA	SER	1131	46.355	22.878	-16.479	1.00	24.82	lite
ATOM	1196	CB	SER	1131	46.688	24.337	-16.630	1.00	34.93	lite
ATOM	1197	OG	SER	1131	47.978	24.593	-16.086	1.00	34.93	lite
ATOM	1199	C	SER	1131	47.495	22.087	-17.164	1.00	24.82	lite
ATOM	1200	O	SER	1131	48.095	22.487	-18.186	1.00	34.93	lite
ATOM	1201	N	GLY	1132	47.872	20.941	-16.591	1.00	38.87	lite
ATOM	1203	CA	GLY	1132	48.837	20.043	-17.201	1.00	38.87	lite
ATOM	1204	C	GLY	1132	50.284	20.484	-17.071	1.00	38.87	lite
ATOM	1205	O	GLY	1132	51.152	19.793	-17.638	1.00	23.72	lite
ATOM	1206	N	GLY	1133	50.597	21.560	-16.330	1.00	2.00	lite
ATOM	1208	CA	GLY	1133	51.976	21.947	-16.158	1.00	2.00	lite
ATOM	1209	C	GLY	1133	52.392	21.720	-14.735	1.00	2.00	lite
ATOM	1210	O	GLY	1133	51.498	21.600	-13.936	1.00	9.38	lite
ATOM	1211	N	ALA	1134	53.685	21.700	-14.399	1.00	6.63	lite
ATOM	1213	CA	ALA	1134	54.230	21.536	-13.052	1.00	6.63	lite
ATOM	1214	CB	ALA	1134	54.431	20.053	-12.771	1.00	8.40	lite
ATOM	1215	C	ALA	1134	55.551	22.259	-12.740	1.00	6.63	lite
ATOM	1216	O	ALA	1134	56.600	21.805	-13.131	1.00	8.40	lite
ATOM	1217	N	SER	1135	55.619	23.415	-12.098	1.00	7.23	lite
ATOM	1219	CA	SER	1135	56.902	24.035	-11.737	1.00	7.23	lite
ATOM	1220	CB	SER	1135	56.951	25.554	-11.834	1.00	12.31	lite
ATOM	1221	OG	SER	1135	56.279	26.152	-12.955	1.00	12.31	lite
ATOM	1223	C	SER	1135	57.252	23.793	-10.292	1.00	7.23	lite
ATOM	1224	O	SER	1135	56.515	24.116	-9.375	1.00	12.31	lite
ATOM	1225	N	VAL	1136	58.323	23.152	-9.945	1.00	7.64	lite

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ATOM	1227	CA	VAL	1136	58.769	23.032	-8.546	1.00	7.64	lite
ATOM	1228	CB	VAL	1136	59.584	21.743	-8.424	1.00	2.00	lite
ATOM	1229	CG1	VAL	1136	60.072	21.532	-7.039	1.00	2.00	lite
ATOM	1230	CG2	VAL	1136	58.697	20.595	-8.866	1.00	2.00	lite
ATOM	1231	C	VAL	1136	59.599	24.282	-8.278	1.00	7.64	lite
ATOM	1232	O	VAL	1136	60.231	24.781	-9.221	1.00	2.00	lite
ATOM	1233	N	VAL	1137	59.660	24.910	-7.097	1.00	5.89	lite
ATOM	1235	CA	VAL	1137	60.445	26.138	-6.901	1.00	5.89	lite
ATOM	1236	CB	VAL	1137	59.611	27.439	-6.734	1.00	7.71	lite
ATOM	1237	CG1	VAL	1137	60.484	28.674	-6.727	1.00	7.71	lite
ATOM	1238	CG2	VAL	1137	58.684	27.597	-7.906	1.00	7.71	lite
ATOM	1239	C	VAL	1137	61.268	26.034	-5.652	1.00	5.89	lite
ATOM	1240	O	VAL	1137	60.894	25.355	-4.716	1.00	7.71	lite
ATOM	1241	N	CYS	1138	62.398	26.736	-5.644	1.00	8.64	lite
ATOM	1243	CA	CYS	1138	63.373	26.728	-4.578	1.00	8.64	lite
ATOM	1244	C	CYS	1138	64.056	28.079	-4.413	1.00	8.64	lite
ATOM	1245	O	CYS	1138	64.891	28.478	-5.241	1.00	18.22	lite
ATOM	1246	CB	CYS	1138	64.409	25.630	-4.873	1.00	18.22	lite
ATOM	1247	SG	CYS	1138	65.671	25.363	-3.602	1.00	18.22	lite
ATOM	1248	N	PHE	1139	63.685	28.875	-3.383	1.00	12.49	lite
ATOM	1250	CA	PHE	1139	64.315	30.176	-3.100	1.00	12.49	lite
ATOM	1251	CB	PHE	1139	63.410	31.145	-2.395	1.00	9.10	lite
ATOM	1252	CG	PHE	1139	62.119	31.496	-3.123	1.00	9.10	lite
ATOM	1253	CD1	PHE	1139	62.091	32.010	-4.391	1.00	9.10	lite
ATOM	1254	CD2	PHE	1139	60.908	31.294	-2.498	1.00	9.10	lite
ATOM	1255	CE1	PHE	1139	60.867	32.278	-4.991	1.00	9.10	lite
ATOM	1256	CE2	PHE	1139	59.687	31.567	-3.109	1.00	9.10	lite
ATOM	1257	CZ	PHE	1139	59.655	32.073	-4.365	1.00	9.10	lite
ATOM	1258	C	PHE	1139	65.497	29.946	-2.174	1.00	12.49	lite
ATOM	1259	O	PHE	1139	65.512	29.182	-1.231	1.00	9.10	lite
ATOM	1260	N	LEU	1140	66.600	30.527	-2.563	1.00	10.76	lite
ATOM	1262	CA	LEU	1140	67.866	30.508	-1.866	1.00	10.76	lite
ATOM	1263	CB	LEU	1140	68.981	30.192	-2.790	1.00	4.84	lite
ATOM	1264	CG	LEU	1140	69.191	28.850	-3.414	1.00	4.84	lite
ATOM	1265	CD1	LEU	1140	69.523	27.975	-2.256	1.00	4.84	lite
ATOM	1266	CD2	LEU	1140	68.020	28.282	-4.154	1.00	4.84	lite
ATOM	1267	C	LEU	1140	67.994	31.954	-1.487	1.00	10.76	lite
ATOM	1268	O	LEU	1140	68.552	32.744	-2.232	1.00	4.84	lite
ATOM	1269	N	ASN	1141	67.439	32.314	-0.353	1.00	12.03	lite
ATOM	1271	CA	ASN	1141	67.401	33.678	0.127	1.00	12.03	lite
ATOM	1272	CB	ASN	1141	66.094	33.968	0.810	1.00	18.74	lite
ATOM	1273	CG	ASN	1141	64.900	34.273	-0.074	1.00	18.74	lite
ATOM	1274	OD1	ASN	1141	64.989	34.604	-1.256	1.00	18.74	lite
ATOM	1275	ND2	ASN	1141	63.704	34.267	0.477	1.00	18.74	lite
ATOM	1278	C	ASN	1141	68.454	34.164	1.102	1.00	12.03	lite
ATOM	1279	O	ASN	1141	68.887	33.407	1.964	1.00	18.74	lite
ATOM	1280	N	ASN	1142	68.855	35.437	1.005	1.00	14.88	lite
ATOM	1282	CA	ASN	1142	69.684	36.111	2.005	1.00	14.88	lite
ATOM	1283	CB	ASN	1142	68.821	36.195	3.259	1.00	23.34	lite
ATOM	1284	CG	ASN	1142	67.578	37.011	2.974	1.00	23.34	lite
ATOM	1285	OD1	ASN	1142	66.492	36.523	2.680	1.00	23.34	lite
ATOM	1286	ND2	ASN	1142	67.603	38.324	2.942	1.00	23.34	lite
ATOM	1289	C	ASN	1142	71.110	35.645	2.368	1.00	14.88	lite
ATOM	1290	O	ASN	1142	71.566	35.606	3.505	1.00	23.34	lite
ATOM	1291	N	PHE	1143	71.866	35.353	1.318	1.00	14.10	lite
ATOM	1293	CA	PHE	1143	73.236	34.925	1.403	1.00	14.10	lite
ATOM	1294	CB	PHE	1143	73.347	33.703	0.576	1.00	15.71	lite
ATOM	1295	CG	PHE	1143	73.134	33.756	-0.951	1.00	15.71	lite
ATOM	1296	CD1	PHE	1143	74.194	34.008	-1.787	1.00	15.71	lite
ATOM	1297	CD2	PHE	1143	71.915	33.441	-1.500	1.00	15.71	lite
ATOM	1298	CE1	PHE	1143	74.013	33.930	-3.135	1.00	15.71	lite
ATOM	1299	CE2	PHE	1143	71.758	33.367	-2.848	1.00	15.71	lite
ATOM	1300	CZ	PHE	1143	72.814	33.612	-3.671	1.00	15.71	lite
ATOM	1301	C	PHE	1143	74.348	35.899	0.996	1.00	14.10	lite
ATOM	1302	O	PHE	1143	74.170	36.899	0.291	1.00	15.71	lite
ATOM	1303	N	TYR	1144	75.568	35.598	1.390	1.00	18.03	lite
ATOM	1305	CA	TYR	1144	76.724	36.366	0.960	1.00	18.03	lite

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ATOM	1306	CB	TYR	1144	76.777	37.612	1.845	1.00	24.77	lite
ATOM	1307	CG	TYR	1144	77.868	38.582	1.396	1.00	24.77	lite
ATOM	1308	CD1	TYR	1144	79.198	38.254	1.512	1.00	24.77	lite
ATOM	1309	CE1	TYR	1144	80.175	39.052	1.007	1.00	24.77	lite
ATOM	1310	CD2	TYR	1144	77.517	39.755	0.765	1.00	24.77	lite
ATOM	1311	CE2	TYR	1144	78.502	40.566	0.241	1.00	24.77	lite
ATOM	1312	CZ	TYR	1144	79.832	40.207	0.365	1.00	24.77	lite
ATOM	1313	OH	TYR	1144	80.821	41.025	-0.206	1.00	24.77	lite
ATOM	1315	C	TYR	1144	77.948	35.429	1.106	1.00	18.03	lite
ATOM	1316	O	TYR	1144	77.953	34.540	1.988	1.00	24.77	lite
ATOM	1317	N	CPR	1145	78.945	35.404	0.219	1.00	9.08	lite
ATOM	1318	CD	CPR	1145	80.183	34.716	0.495	1.00	35.34	lite
ATOM	1319	CA	CPR	1145	79.123	36.155	-1.013	1.00	9.08	lite
ATOM	1320	CB	CPR	1145	80.524	35.895	-1.389	1.00	35.34	lite
ATOM	1321	CG	CPR	1145	81.208	35.705	-0.074	1.00	35.34	lite
ATOM	1322	C	CPR	1145	78.197	35.872	-2.175	1.00	9.08	lite
ATOM	1323	O	CPR	1145	77.545	34.850	-2.148	1.00	35.34	lite
ATOM	1324	N	LYS	1146	78.070	36.635	-3.245	1.00	30.25	lite
ATOM	1326	CA	LYS	1146	77.079	36.335	-4.291	1.00	30.25	lite
ATOM	1327	CB	LYS	1146	77.296	37.365	-5.373	1.00	38.03	lite
ATOM	1328	CG	LYS	1146	76.942	37.106	-6.805	1.00	38.03	lite
ATOM	1329	CD	LYS	1146	78.063	37.806	-7.585	1.00	38.03	lite
ATOM	1330	CE	LYS	1146	78.357	39.324	-7.322	1.00	38.03	lite
ATOM	1331	NZ	LYS	1146	79.081	39.624	-6.073	1.00	38.03	lite
ATOM	1335	C	LYS	1146	77.007	34.943	-4.911	1.00	30.25	lite
ATOM	1336	O	LYS	1146	75.970	34.345	-5.209	1.00	38.03	lite
ATOM	1337	N	ASP	1147	78.152	34.362	-5.114	1.00	15.19	lite
ATOM	1339	CA	ASP	1147	78.084	33.119	-5.812	1.00	15.19	lite
ATOM	1340	CB	ASP	1147	79.283	32.919	-6.653	1.00	30.84	lite
ATOM	1341	CG	ASP	1147	80.621	33.051	-5.997	1.00	30.84	lite
ATOM	1342	OD1	ASP	1147	81.569	32.848	-6.782	1.00	30.84	lite
ATOM	1343	OD2	ASP	1147	80.720	33.338	-4.778	1.00	30.84	lite
ATOM	1344	C	ASP	1147	77.892	31.903	-4.998	1.00	15.19	lite
ATOM	1345	O	ASP	1147	78.534	31.620	-3.990	1.00	30.84	lite
ATOM	1346	N	ILE	1148	76.782	31.413	-5.512	1.00	15.99	lite
ATOM	1348	CA	ILE	1148	76.237	30.154	-5.132	1.00	15.99	lite
ATOM	1349	CB	ILE	1148	74.884	30.582	-4.457	1.00	14.63	lite
ATOM	1350	CG2	ILE	1148	73.698	30.709	-5.417	1.00	14.63	lite
ATOM	1351	CG1	ILE	1148	74.574	29.530	-3.427	1.00	14.63	lite
ATOM	1352	CD1	ILE	1148	73.317	29.820	-2.600	1.00	14.63	lite
ATOM	1353	C	ILE	1148	76.190	29.260	-6.390	1.00	15.99	lite
ATOM	1354	O	ILE	1148	76.438	29.774	-7.491	1.00	14.63	lite
ATOM	1355	N	ASN	1149	75.900	27.942	-6.253	1.00	10.88	lite
ATOM	1357	CA	ASN	1149	75.757	26.951	-7.334	1.00	10.88	lite
ATOM	1358	CB	ASN	1149	76.978	26.042	-7.368	1.00	37.20	lite
ATOM	1359	CG	ASN	1149	76.816	24.777	-8.237	1.00	37.20	lite
ATOM	1360	OD1	ASN	1149	77.242	24.728	-9.389	1.00	37.20	lite
ATOM	1361	ND2	ASN	1149	76.162	23.692	-7.810	1.00	37.20	lite
ATOM	1364	C	ASN	1149	74.516	26.126	-7.014	1.00	10.88	lite
ATOM	1365	O	ASN	1149	74.495	25.483	-5.961	1.00	37.20	lite
ATOM	1366	N	VAL	1150	73.420	26.059	-7.768	1.00	18.02	lite
ATOM	1368	CA	VAL	1150	72.276	25.256	-7.312	1.00	18.02	lite
ATOM	1369	CB	VAL	1150	70.971	26.056	-7.420	1.00	5.55	lite
ATOM	1370	CG1	VAL	1150	69.822	25.468	-6.629	1.00	5.55	lite
ATOM	1371	CG2	VAL	1150	71.243	27.403	-6.846	1.00	5.55	lite
ATOM	1372	C	VAL	1150	72.207	24.032	-8.204	1.00	18.02	lite
ATOM	1373	O	VAL	1150	72.455	24.094	-9.411	1.00	5.55	lite
ATOM	1374	N	LYS	1151	71.960	22.882	-7.625	1.00	2.00	lite
ATOM	1376	CA	LYS	1151	71.819	21.702	-8.426	1.00	2.00	lite
ATOM	1377	CB	LYS	1151	72.965	20.763	-8.141	1.00	24.25	lite
ATOM	1378	CG	LYS	1151	73.009	19.452	-8.931	1.00	24.25	lite
ATOM	1379	CD	LYS	1151	74.407	18.930	-9.205	1.00	24.25	lite
ATOM	1380	CE	LYS	1151	75.272	19.824	-10.110	1.00	24.25	lite
ATOM	1381	NZ	LYS	1151	76.061	20.815	-9.370	1.00	24.25	lite
ATOM	1385	C	LYS	1151	70.536	21.032	-8.093	1.00	2.00	lite
ATOM	1386	O	LYS	1151	70.197	20.977	-6.926	1.00	24.25	lite
ATOM	1387	N	TRP	1152	69.843	20.427	-9.037	1.00	2.00	lite

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ATOM	1389	CA	TRP	1152	68.565	19.784	-8.760	1.00	2.00	lite
ATOM	1390	CB	TRP	1152	67.484	20.192	-9.734	1.00	2.00	lite
ATOM	1391	CG	TRP	1152	66.768	21.517	-9.497	1.00	2.00	lite
ATOM	1392	CD2	TRP	1152	65.588	21.690	-8.823	1.00	2.00	lite
ATOM	1393	CE2	TRP	1152	65.379	23.036	-8.928	1.00	2.00	lite
ATOM	1394	CE3	TRP	1152	64.676	20.908	-8.161	1.00	2.00	lite
ATOM	1395	CD1	TRP	1152	67.263	22.680	-9.981	1.00	2.00	lite
ATOM	1396	NE1	TRP	1152	66.394	23.578	-9.610	1.00	2.00	lite
ATOM	1398	CZ2	TRP	1152	64.274	23.630	-8.362	1.00	2.00	lite
ATOM	1399	CZ3	TRP	1152	63.569	21.477	-7.594	1.00	2.00	lite
ATOM	1400	CH2	TRP	1152	63.379	22.826	-7.708	1.00	2.00	lite
ATOM	1401	C	TRP	1152	68.625	18.310	-8.853	1.00	2.00	lite
ATOM	1402	O	TRP	1152	69.131	17.821	-9.830	1.00	2.00	lite
ATOM	1403	N	LYS	1153	68.088	17.550	-7.955	1.00	9.35	lite
ATOM	1405	CA	LYS	1153	68.116	16.101	-8.100	1.00	9.35	lite
ATOM	1406	CB	LYS	1153	68.914	15.530	-6.964	1.00	28.16	lite
ATOM	1407	CG	LYS	1153	70.314	15.354	-7.426	1.00	28.16	lite
ATOM	1408	CD	LYS	1153	71.187	15.807	-6.290	1.00	28.16	lite
ATOM	1409	CE	LYS	1153	72.639	15.681	-6.682	1.00	28.16	lite
ATOM	1410	NZ	LYS	1153	72.922	16.506	-7.851	1.00	28.16	lite
ATOM	1414	C	LYS	1153	66.784	15.369	-8.183	1.00	9.35	lite
ATOM	1415	O	LYS	1153	66.220	15.048	-7.143	1.00	28.16	lite
ATOM	1416	N	ILE	1154	66.159	15.092	-9.332	1.00	20.38	lite
ATOM	1418	CA	ILE	1154	64.966	14.268	-9.366	1.00	20.38	lite
ATOM	1419	CB	ILE	1154	64.381	13.986	-10.670	1.00	21.10	lite
ATOM	1420	CG2	ILE	1154	63.062	13.408	-10.294	1.00	21.10	lite
ATOM	1421	CG1	ILE	1154	64.248	15.162	-11.597	1.00	21.10	lite
ATOM	1422	CD1	ILE	1154	63.082	16.097	-11.260	1.00	21.10	lite
ATOM	1423	C	ILE	1154	65.511	12.906	-9.007	1.00	20.38	lite
ATOM	1424	O	ILE	1154	66.333	12.338	-9.729	1.00	21.10	lite
ATOM	1425	N	ASP	1155	65.027	12.439	-7.860	1.00	18.01	lite
ATOM	1427	CA	ASP	1155	65.450	11.166	-7.296	1.00	18.01	lite
ATOM	1428	CB	ASP	1155	64.688	10.012	-7.973	1.00	14.44	lite
ATOM	1429	CG	ASP	1155	63.227	9.780	-7.658	1.00	14.44	lite
ATOM	1430	OD1	ASP	1155	62.490	9.542	-8.612	1.00	14.44	lite
ATOM	1431	OD2	ASP	1155	62.856	9.793	-6.481	1.00	14.44	lite
ATOM	1432	C	ASP	1155	66.948	10.807	-7.336	1.00	18.01	lite
ATOM	1433	O	ASP	1155	67.420	9.926	-8.053	1.00	14.44	lite
ATOM	1434	N	GLY	1156	67.782	11.470	-6.592	1.00	8.00	lite
ATOM	1436	CA	GLY	1156	69.158	11.045	-6.583	1.00	8.00	lite
ATOM	1437	C	GLY	1156	69.978	11.576	-7.734	1.00	8.00	lite
ATOM	1438	O	GLY	1156	71.135	11.909	-7.487	1.00	23.99	lite
ATOM	1439	N	SER	1157	69.506	11.711	-8.978	1.00	30.29	lite
ATOM	1441	CA	SER	1157	70.343	12.276	-10.071	1.00	30.29	lite
ATOM	1442	CB	SER	1157	70.388	11.301	-11.253	1.00	13.58	lite
ATOM	1443	OG	SER	1157	69.211	10.610	-11.586	1.00	13.58	lite
ATOM	1445	C	SER	1157	70.118	13.670	-10.696	1.00	30.29	lite
ATOM	1446	O	SER	1157	69.029	14.234	-10.662	1.00	13.58	lite
ATOM	1447	N	GLU	1158	71.133	14.344	-11.246	1.00	13.57	lite
ATOM	1449	CA	GLU	1158	70.956	15.648	-11.924	1.00	13.57	lite
ATOM	1450	CB	GLU	1158	72.202	16.046	-12.667	1.00	18.72	lite
ATOM	1451	CG	GLU	1158	72.972	17.164	-12.000	1.00	18.72	lite
ATOM	1452	CD	GLU	1158	74.088	17.776	-12.869	1.00	18.72	lite
ATOM	1453	OE1	GLU	1158	74.007	18.953	-13.231	1.00	18.72	lite
ATOM	1454	OE2	GLU	1158	75.047	17.074	-13.197	1.00	18.72	lite
ATOM	1455	C	GLU	1158	69.809	15.846	-12.933	1.00	13.57	lite
ATOM	1456	O	GLU	1158	69.355	14.968	-13.679	1.00	18.72	lite
ATOM	1457	N	ARG	1159	69.263	17.041	-12.808	1.00	7.20	lite
ATOM	1459	CA	ARG	1159	68.266	17.499	-13.737	1.00	7.20	lite
ATOM	1460	CB	ARG	1159	66.863	17.479	-13.136	1.00	3.90	lite
ATOM	1461	CG	ARG	1159	65.734	18.139	-13.931	1.00	3.90	lite
ATOM	1462	CD	ARG	1159	65.473	17.649	-15.336	1.00	3.90	lite
ATOM	1463	NE	ARG	1159	64.590	16.527	-15.422	1.00	3.90	lite
ATOM	1465	CZ	ARG	1159	63.599	16.471	-16.299	1.00	3.90	lite
ATOM	1466	NH1	ARG	1159	63.310	17.431	-17.156	1.00	3.90	lite
ATOM	1469	NH2	ARG	1159	62.888	15.384	-16.384	1.00	3.90	lite
ATOM	1472	C	ARG	1159	68.660	18.907	-14.030	1.00	7.20	lite

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ATOM	1473	O	ARG	1159	68.893	19.723	-13.149	1.00	3.90	lite
ATOM	1474	N	GLN	1160	68.926	19.045	-15.298	1.00	2.00	lite
ATOM	1476	CA	GLN	1160	69.227	20.294	-15.917	1.00	2.00	lite
ATOM	1477	CB	GLN	1160	70.589	20.161	-16.565	1.00	35.79	lite
ATOM	1478	CG	GLN	1160	71.425	21.286	-17.203	1.00	35.79	lite
ATOM	1479	CD	GLN	1160	71.183	21.698	-18.682	1.00	35.79	lite
ATOM	1480	OE1	GLN	1160	70.887	20.903	-19.608	1.00	35.79	lite
ATOM	1481	NE2	GLN	1160	71.309	22.992	-19.025	1.00	35.79	lite
ATOM	1484	C	GLN	1160	68.109	20.620	-16.921	1.00	2.00	lite
ATOM	1485	O	GLN	1160	68.102	21.809	-17.212	1.00	35.79	lite
ATOM	1486	N	ASN	1161	67.158	19.876	-17.562	1.00	4.82	lite
ATOM	1488	CA	ASN	1161	66.129	20.674	-18.245	1.00	4.82	lite
ATOM	1489	CB	ASN	1161	65.540	20.177	-19.662	1.00	9.79	lite
ATOM	1490	CG	ASN	1161	65.042	18.783	-19.840	1.00	9.79	lite
ATOM	1491	OD1	ASN	1161	65.701	17.928	-19.363	1.00	9.79	lite
ATOM	1492	ND2	ASN	1161	63.994	18.337	-20.446	1.00	9.79	lite
ATOM	1495	C	ASN	1161	64.919	20.909	-17.399	1.00	4.82	lite
ATOM	1496	O	ASN	1161	64.496	20.136	-16.556	1.00	9.79	lite
ATOM	1497	N	GLY	1162	64.435	22.122	-17.631	1.00	2.00	lite
ATOM	1499	CA	GLY	1162	63.297	22.687	-16.949	1.00	2.00	lite
ATOM	1500	C	GLY	1162	63.745	23.782	-16.021	1.00	2.00	lite
ATOM	1501	O	GLY	1162	62.947	24.564	-15.544	1.00	27.69	lite
ATOM	1502	N	VAL	1163	65.036	23.905	-15.746	1.00	19.59	lite
ATOM	1504	CA	VAL	1163	65.567	24.911	-14.831	1.00	19.59	lite
ATOM	1505	CB	VAL	1163	66.895	24.274	-14.254	1.00	8.56	lite
ATOM	1506	CG1	VAL	1163	67.628	25.119	-13.229	1.00	8.56	lite
ATOM	1507	CG2	VAL	1163	66.456	22.977	-13.566	1.00	8.56	lite
ATOM	1508	C	VAL	1163	65.753	26.341	-15.366	1.00	19.59	lite
ATOM	1509	O	VAL	1163	66.485	26.619	-16.316	1.00	8.56	lite
ATOM	1510	N	LEU	1164	64.971	27.224	-14.761	1.00	2.00	lite
ATOM	1512	CA	LEU	1164	65.132	28.655	-14.882	1.00	2.00	lite
ATOM	1513	CB	LEU	1164	63.857	29.404	-15.000	1.00	26.79	lite
ATOM	1514	CG	LEU	1164	63.006	29.202	-16.233	1.00	26.79	lite
ATOM	1515	CD1	LEU	1164	61.514	28.881	-15.904	1.00	26.79	lite
ATOM	1516	CD2	LEU	1164	63.231	30.472	-17.047	1.00	26.79	lite
ATOM	1517	C	LEU	1164	65.764	29.246	-13.623	1.00	2.00	lite
ATOM	1518	O	LEU	1164	65.184	29.095	-12.552	1.00	26.79	lite
ATOM	1519	N	ASN	1165	66.918	29.927	-13.591	1.00	8.15	lite
ATOM	1521	CA	ASN	1165	67.449	30.468	-12.354	1.00	8.15	lite
ATOM	1522	CB	ASN	1165	68.875	29.984	-12.137	1.00	8.50	lite
ATOM	1523	CG	ASN	1165	69.022	28.519	-11.708	1.00	8.50	lite
ATOM	1524	OD1	ASN	1165	70.081	27.947	-11.682	1.00	8.50	lite
ATOM	1525	ND2	ASN	1165	68.056	27.711	-11.372	1.00	8.50	lite
ATOM	1528	C	ASN	1165	67.449	31.968	-12.388	1.00	8.15	lite
ATOM	1529	O	ASN	1165	67.705	32.474	-13.486	1.00	8.50	lite
ATOM	1530	N	SER	1166	67.231	32.692	-11.282	1.00	2.00	lite
ATOM	1532	CA	SER	1166	67.305	34.128	-11.354	1.00	2.00	lite
ATOM	1533	CB	SER	1166	65.964	34.737	-11.505	1.00	10.91	lite
ATOM	1534	OG	SER	1166	66.250	36.080	-11.841	1.00	10.91	lite
ATOM	1536	C	SER	1166	67.955	34.810	-10.182	1.00	2.00	lite
ATOM	1537	O	SER	1166	67.788	34.417	-9.057	1.00	10.91	lite
ATOM	1538	N	TRP	1167	68.752	35.830	-10.328	1.00	5.07	lite
ATOM	1540	CA	TRP	1167	69.406	36.425	-9.204	1.00	5.07	lite
ATOM	1541	CB	TRP	1167	70.900	36.408	-9.385	1.00	41.01	lite
ATOM	1542	CG	TRP	1167	71.565	35.059	-9.752	1.00	41.01	lite
ATOM	1543	CD2	TRP	1167	72.515	34.430	-8.987	1.00	41.01	lite
ATOM	1544	CE2	TRP	1167	72.773	33.278	-9.744	1.00	41.01	lite
ATOM	1545	CE3	TRP	1167	73.172	34.676	-7.791	1.00	41.01	lite
ATOM	1546	CD1	TRP	1167	71.288	34.327	-10.911	1.00	41.01	lite
ATOM	1547	NE1	TRP	1167	72.033	33.245	-10.877	1.00	41.01	lite
ATOM	1549	CZ2	TRP	1167	73.703	32.329	-9.326	1.00	41.01	lite
ATOM	1550	CZ3	TRP	1167	74.107	33.722	-7.383	1.00	41.01	lite
ATOM	1551	CH2	TRP	1167	74.372	32.567	-8.137	1.00	41.01	lite
ATOM	1552	C	TRP	1167	68.974	37.862	-8.999	1.00	5.07	lite
ATOM	1553	O	TRP	1167	68.759	38.674	-9.896	1.00	41.01	lite
ATOM	1554	N	THR	1168	68.708	38.200	-7.754	1.00	15.93	lite
ATOM	1556	CA	THR	1168	68.453	39.605	-7.445	1.00	15.93	lite

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ATOM	1557	CB	THR	1168	67.825	39.901	-6.075	1.00	12.04	lite
ATOM	1558	OG1	THR	1168	68.675	39.324	-5.106	1.00	12.04	lite
ATOM	1560	CG2	THR	1168	66.419	39.372	-5.928	1.00	12.04	lite
ATOM	1561	C	THR	1168	69.786	40.328	-7.374	1.00	15.93	lite
ATOM	1562	O	THR	1168	70.842	39.725	-7.198	1.00	12.04	lite
ATOM	1563	N	ASP	1169	69.743	41.629	-7.568	1.00	11.77	lite
ATOM	1565	CA	ASP	1169	70.874	42.479	-7.244	1.00	11.77	lite
ATOM	1566	CB	ASP	1169	70.621	43.927	-7.569	1.00	32.89	lite
ATOM	1567	CG	ASP	1169	69.938	44.141	-8.919	1.00	32.89	lite
ATOM	1568	OD1	ASP	1169	70.599	44.737	-9.792	1.00	32.89	lite
ATOM	1569	OD2	ASP	1169	68.750	43.738	-9.065	1.00	32.89	lite
ATOM	1570	C	ASP	1169	71.141	42.468	-5.725	1.00	11.77	lite
ATOM	1571	O	ASP	1169	70.345	41.971	-4.922	1.00	32.89	lite
ATOM	1572	N	GLN	1170	72.249	43.081	-5.293	1.00	26.71	lite
ATOM	1574	CA	GLN	1170	72.528	43.270	-3.855	1.00	26.71	lite
ATOM	1575	CB	GLN	1170	73.926	43.989	-3.679	1.00	19.88	lite
ATOM	1576	CG	GLN	1170	74.325	44.479	-2.299	1.00	19.88	lite
ATOM	1577	CD	GLN	1170	75.744	44.178	-1.855	1.00	19.88	lite
ATOM	1578	OE1	GLN	1170	76.674	44.905	-2.152	1.00	19.88	lite
ATOM	1579	NE2	GLN	1170	76.099	43.147	-1.144	1.00	19.88	lite
ATOM	1582	C	GLN	1170	71.416	44.070	-3.148	1.00	26.71	lite
ATOM	1583	O	GLN	1170	70.923	45.063	-3.684	1.00	19.88	lite
ATOM	1584	N	ASP	1171	70.987	43.650	-1.955	1.00	13.75	lite
ATOM	1586	CA	ASP	1171	69.952	44.321	-1.163	1.00	13.75	lite
ATOM	1587	CB	ASP	1171	69.523	43.299	-0.141	1.00	28.59	lite
ATOM	1588	CG	ASP	1171	68.423	43.702	0.795	1.00	28.59	lite
ATOM	1589	OD1	ASP	1171	68.735	44.459	1.719	1.00	28.59	lite
ATOM	1590	OD2	ASP	1171	67.287	43.241	0.621	1.00	28.59	lite
ATOM	1591	C	ASP	1171	70.327	45.666	-0.515	1.00	13.75	lite
ATOM	1592	O	ASP	1171	71.462	45.892	-0.078	1.00	28.59	lite
ATOM	1593	N	SER	1172	69.392	46.584	-0.288	1.00	38.46	lite
ATOM	1595	CA	SER	1172	69.786	47.952	0.197	1.00	38.46	lite
ATOM	1596	CB	SER	1172	68.767	49.091	-0.231	1.00	60.17	lite
ATOM	1597	OG	SER	1172	67.444	48.992	0.396	1.00	60.17	lite
ATOM	1599	C	SER	1172	69.983	48.211	1.685	1.00	38.46	lite
ATOM	1600	O	SER	1172	70.315	49.323	2.134	1.00	60.17	lite
ATOM	1601	N	LYS	1173	69.494	47.169	2.393	1.00	35.69	lite
ATOM	1603	CA	LYS	1173	69.513	47.122	3.872	1.00	35.69	lite
ATOM	1604	CB	LYS	1173	68.224	46.572	4.461	1.00	34.48	lite
ATOM	1605	CG	LYS	1173	66.961	47.190	3.840	1.00	34.48	lite
ATOM	1606	CD	LYS	1173	66.789	48.715	3.843	1.00	34.48	lite
ATOM	1607	CE	LYS	1173	66.048	49.216	5.092	1.00	34.48	lite
ATOM	1608	NZ	LYS	1173	65.827	50.672	5.046	1.00	34.48	lite
ATOM	1612	C	LYS	1173	70.631	46.245	4.367	1.00	35.69	lite
ATOM	1613	O	LYS	1173	71.709	46.787	4.648	1.00	34.48	lite
ATOM	1614	N	ASP	1174	70.447	44.903	4.349	1.00	15.60	lite
ATOM	1616	CA	ASP	1174	71.523	44.007	4.786	1.00	15.60	lite
ATOM	1617	CB	ASP	1174	70.954	42.702	5.330	1.00	18.24	lite
ATOM	1618	CG	ASP	1174	69.989	41.895	4.450	1.00	18.24	lite
ATOM	1619	OD1	ASP	1174	69.982	42.027	3.230	1.00	18.24	lite
ATOM	1620	OD2	ASP	1174	69.208	41.120	5.002	1.00	18.24	lite
ATOM	1621	C	ASP	1174	72.609	43.640	3.777	1.00	15.60	lite
ATOM	1622	O	ASP	1174	73.483	42.845	4.088	1.00	18.24	lite
ATOM	1623	N	SER	1175	72.592	44.166	2.551	1.00	9.91	lite
ATOM	1625	CA	SER	1175	73.713	43.994	1.607	1.00	9.91	lite
ATOM	1626	CB	SER	1175	74.994	44.552	2.196	1.00	25.82	lite
ATOM	1627	OG	SER	1175	74.679	45.814	2.773	1.00	25.82	lite
ATOM	1629	C	SER	1175	73.980	42.567	1.214	1.00	9.91	lite
ATOM	1630	O	SER	1175	75.085	42.091	0.981	1.00	25.82	lite
ATOM	1631	N	THR	1176	72.840	41.926	1.076	1.00	12.88	lite
ATOM	1633	CA	THR	1176	72.759	40.518	0.768	1.00	12.88	lite
ATOM	1634	CB	THR	1176	71.846	39.970	1.786	1.00	12.46	lite
ATOM	1635	OG1	THR	1176	72.505	38.800	2.136	1.00	12.46	lite
ATOM	1637	CG2	THR	1176	70.380	39.766	1.360	1.00	12.46	lite
ATOM	1638	C	THR	1176	72.329	40.090	-0.630	1.00	12.88	lite
ATOM	1639	O	THR	1176	71.887	40.925	-1.403	1.00	12.46	lite
ATOM	1640	N	TYR	1177	72.467	38.841	-1.030	1.00	7.59	lite

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ATOM	1642	CA	TYR	1177	71.924	38.407	-2.294	1.00	7.59	lite
ATOM	1643	CB	TYR	1177	73.060	37.941	-3.172	1.00	14.48	lite
ATOM	1644	CG	TYR	1177	74.151	38.955	-3.423	1.00	14.48	lite
ATOM	1645	CD1	TYR	1177	74.110	39.757	-4.549	1.00	14.48	lite
ATOM	1646	CE1	TYR	1177	75.115	40.668	-4.833	1.00	14.48	lite
ATOM	1647	CD2	TYR	1177	75.202	39.059	-2.551	1.00	14.48	lite
ATOM	1648	CE2	TYR	1177	76.213	39.970	-2.813	1.00	14.48	lite
ATOM	1649	CZ	TYR	1177	76.174	40.766	-3.958	1.00	14.48	lite
ATOM	1650	OH	TYR	1177	77.227	41.632	-4.271	1.00	14.48	lite
ATOM	1652	C	TYR	1177	70.874	37.289	-2.089	1.00	7.59	lite
ATOM	1653	O	TYR	1177	70.623	36.704	-1.033	1.00	14.48	lite
ATOM	1654	N	SER	1178	70.167	36.953	-3.128	1.00	10.57	lite
ATOM	1656	CA	SER	1178	69.092	35.994	-3.103	1.00	10.57	lite
ATOM	1657	CB	SER	1178	67.785	36.614	-2.821	1.00	9.70	lite
ATOM	1658	OG	SER	1178	67.808	37.065	-1.497	1.00	9.70	lite
ATOM	1660	C	SER	1178	68.988	35.443	-4.480	1.00	10.57	lite
ATOM	1661	O	SER	1178	69.321	36.132	-5.446	1.00	9.70	lite
ATOM	1662	N	MET	1179	68.455	34.248	-4.582	1.00	15.87	lite
ATOM	1664	CA	MET	1179	68.298	33.566	-5.844	1.00	15.87	lite
ATOM	1665	CB	MET	1179	69.572	32.833	-6.100	1.00	14.35	lite
ATOM	1666	CG	MET	1179	69.596	32.122	-7.405	1.00	14.35	lite
ATOM	1667	SD	MET	1179	70.701	30.712	-7.232	1.00	14.35	lite
ATOM	1668	CE	MET	1179	70.574	30.249	-8.943	1.00	14.35	lite
ATOM	1669	C	MET	1179	67.103	32.595	-5.929	1.00	15.87	lite
ATOM	1670	O	MET	1179	66.701	31.970	-4.925	1.00	14.35	lite
ATOM	1671	N	SER	1180	66.449	32.481	-7.103	1.00	6.22	lite
ATOM	1673	CA	SER	1180	65.419	31.448	-7.261	1.00	6.22	lite
ATOM	1674	CB	SER	1180	63.943	31.870	-7.456	1.00	4.23	lite
ATOM	1675	OG	SER	1180	63.591	32.725	-8.522	1.00	4.23	lite
ATOM	1677	C	SER	1180	65.649	30.645	-8.467	1.00	6.22	lite
ATOM	1678	O	SER	1180	66.120	31.092	-9.494	1.00	4.23	lite
ATOM	1679	N	SER	1181	65.413	29.389	-8.197	1.00	2.00	lite
ATOM	1681	CA	SER	1181	65.540	28.339	-9.180	1.00	2.00	lite
ATOM	1682	CB	SER	1181	66.562	27.329	-8.697	1.00	8.08	lite
ATOM	1683	OG	SER	1181	66.845	26.266	-9.591	1.00	8.08	lite
ATOM	1685	C	SER	1181	64.206	27.655	-9.407	1.00	2.00	lite
ATOM	1686	O	SER	1181	63.611	27.166	-8.476	1.00	8.08	lite
ATOM	1687	N	THR	1182	63.632	27.668	-10.588	1.00	17.75	lite
ATOM	1689	CA	THR	1182	62.376	26.973	-10.892	1.00	17.75	lite
ATOM	1690	CB	THR	1182	61.313	27.898	-11.597	1.00	5.10	lite
ATOM	1691	OG1	THR	1182	61.112	28.974	-10.717	1.00	5.10	lite
ATOM	1693	CG2	THR	1182	59.970	27.298	-11.804	1.00	5.10	lite
ATOM	1694	C	THR	1182	62.652	25.792	-11.819	1.00	17.75	lite
ATOM	1695	O	THR	1182	63.235	25.937	-12.876	1.00	5.10	lite
ATOM	1696	N	LEU	1183	62.351	24.582	-11.421	1.00	2.00	lite
ATOM	1698	CA	LEU	1183	62.374	23.479	-12.331	1.00	2.00	lite
ATOM	1699	CB	LEU	1183	62.686	22.196	-11.666	1.00	11.37	lite
ATOM	1700	CG	LEU	1183	62.429	20.921	-12.389	1.00	11.37	lite
ATOM	1701	CD1	LEU	1183	63.361	20.855	-13.542	1.00	11.37	lite
ATOM	1702	CD2	LEU	1183	62.757	19.737	-11.539	1.00	11.37	lite
ATOM	1703	C	LEU	1183	60.949	23.385	-12.820	1.00	2.00	lite
ATOM	1704	O	LEU	1183	60.007	23.247	-12.037	1.00	11.37	lite
ATOM	1705	N	THR	1184	60.674	23.560	-14.097	1.00	7.93	lite
ATOM	1707	CA	THR	1184	59.304	23.373	-14.564	1.00	7.93	lite
ATOM	1708	CB	THR	1184	58.746	24.870	-15.014	1.00	11.15	lite
ATOM	1709	OG1	THR	1184	57.837	24.653	-16.045	1.00	11.15	lite
ATOM	1711	CG2	THR	1184	59.766	25.907	-15.468	1.00	11.15	lite
ATOM	1712	C	THR	1184	59.265	22.223	-15.581	1.00	7.93	lite
ATOM	1713	O	THR	1184	60.128	21.987	-16.394	1.00	11.15	lite
ATOM	1714	N	LEU	1185	58.372	21.281	-15.274	1.00	12.24	lite
ATOM	1716	CA	LEU	1185	58.156	19.982	-15.938	1.00	12.24	lite
ATOM	1717	CB	LEU	1185	58.439	18.902	-14.912	1.00	14.58	lite
ATOM	1718	CG	LEU	1185	59.575	19.072	-13.972	1.00	14.58	lite
ATOM	1719	CD1	LEU	1185	59.337	18.347	-12.666	1.00	14.58	lite
ATOM	1720	CD2	LEU	1185	60.781	18.657	-14.718	1.00	14.58	lite
ATOM	1721	C	LEU	1185	56.695	19.776	-16.516	1.00	12.24	lite
ATOM	1722	O	LEU	1185	55.821	20.610	-16.253	1.00	14.58	lite

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ATOM	1723	N	THR	1186	56.285	18.780	-17.329	1.00	2.00	lite
ATOM	1725	CA	THR	1186	54.894	18.597	-17.762	1.00	2.00	lite
ATOM	1726	CB	THR	1186	54.731	17.685	-18.958	1.00	14.71	lite
ATOM	1727	OG1	THR	1186	55.196	16.372	-18.627	1.00	14.71	lite
ATOM	1729	CG2	THR	1186	55.528	18.232	-20.135	1.00	14.71	lite
ATOM	1730	C	THR	1186	54.165	17.919	-16.673	1.00	2.00	lite
ATOM	1731	O	THR	1186	54.885	17.333	-15.883	1.00	14.71	lite
ATOM	1732	N	LYS	1187	52.842	17.821	-16.564	1.00	9.64	lite
ATOM	1734	CA	LYS	1187	52.202	17.155	-15.429	1.00	9.64	lite
ATOM	1735	CB	LYS	1187	50.764	17.137	-15.606	1.00	23.47	lite
ATOM	1736	CG	LYS	1187	50.119	17.175	-14.264	1.00	23.47	lite
ATOM	1737	CD	LYS	1187	49.036	16.126	-14.335	1.00	23.47	lite
ATOM	1738	CE	LYS	1187	48.268	16.058	-13.024	1.00	23.47	lite
ATOM	1739	NZ	LYS	1187	47.355	14.923	-13.041	1.00	23.47	lite
ATOM	1743	C	LYS	1187	52.635	15.726	-15.277	1.00	9.64	lite
ATOM	1744	O	LYS	1187	53.150	15.294	-14.263	1.00	23.47	lite
ATOM	1745	N	ASP	1188	52.524	14.981	-16.362	1.00	7.71	lite
ATOM	1747	CA	ASP	1188	52.952	13.600	-16.451	1.00	7.71	lite
ATOM	1748	CB	ASP	1188	52.658	13.066	-17.810	1.00	26.61	lite
ATOM	1749	CG	ASP	1188	51.169	13.107	-18.170	1.00	26.61	lite
ATOM	1750	OD1	ASP	1188	50.278	12.949	-17.302	1.00	26.61	lite
ATOM	1751	OD2	ASP	1188	50.898	13.324	-19.357	1.00	26.61	lite
ATOM	1752	C	ASP	1188	54.403	13.433	-16.186	1.00	7.71	lite
ATOM	1753	O	ASP	1188	54.724	12.530	-15.461	1.00	26.61	lite
ATOM	1754	N	GLU	1189	55.355	14.202	-16.646	1.00	10.85	lite
ATOM	1756	CA	GLU	1189	56.720	13.982	-16.160	1.00	10.85	lite
ATOM	1757	CB	GLU	1189	57.706	14.847	-16.891	1.00	17.17	lite
ATOM	1758	CG	GLU	1189	59.161	14.694	-16.495	1.00	17.17	lite
ATOM	1759	CD	GLU	1189	59.823	13.369	-16.807	1.00	17.17	lite
ATOM	1760	OE1	GLU	1189	60.952	13.211	-16.402	1.00	17.17	lite
ATOM	1761	OE2	GLU	1189	59.267	12.500	-17.470	1.00	17.17	lite
ATOM	1762	C	GLU	1189	56.940	14.238	-14.672	1.00	10.85	lite
ATOM	1763	O	GLU	1189	57.697	13.496	-14.055	1.00	17.17	lite
ATOM	1764	N	TYR	1190	56.314	15.255	-14.068	1.00	6.37	lite
ATOM	1766	CA	TYR	1190	56.366	15.463	-12.618	1.00	6.37	lite
ATOM	1767	CB	TYR	1190	55.434	16.619	-12.139	1.00	10.87	lite
ATOM	1768	CG	TYR	1190	55.294	16.798	-10.615	1.00	10.87	lite
ATOM	1769	CD1	TYR	1190	56.393	17.109	-9.836	1.00	10.87	lite
ATOM	1770	CE1	TYR	1190	56.272	17.310	-8.478	1.00	10.87	lite
ATOM	1771	CD2	TYR	1190	54.068	16.690	-9.979	1.00	10.87	lite
ATOM	1772	CE2	TYR	1190	53.937	16.886	-8.604	1.00	10.87	lite
ATOM	1773	CZ	TYR	1190	55.054	17.211	-7.856	1.00	10.87	lite
ATOM	1774	OH	TYR	1190	54.975	17.522	-6.505	1.00	10.87	lite
ATOM	1776	C	TYR	1190	55.911	14.205	-11.903	1.00	6.37	lite
ATOM	1777	O	TYR	1190	56.512	13.670	-10.986	1.00	10.87	lite
ATOM	1778	N	GLU	1191	54.832	13.690	-12.414	1.00	16.57	lite
ATOM	1780	CA	GLU	1191	54.237	12.534	-11.813	1.00	16.57	lite
ATOM	1781	CB	GLU	1191	52.810	12.511	-12.335	1.00	28.83	lite
ATOM	1782	CG	GLU	1191	52.010	13.514	-11.533	1.00	28.83	lite
ATOM	1783	CD	GLU	1191	50.494	13.506	-11.674	1.00	28.83	lite
ATOM	1784	OE1	GLU	1191	49.914	14.167	-10.788	1.00	28.83	lite
ATOM	1785	OE2	GLU	1191	49.929	12.888	-12.612	1.00	28.83	lite
ATOM	1786	C	GLU	1191	54.968	11.181	-12.008	1.00	16.57	lite
ATOM	1787	O	GLU	1191	54.728	10.120	-11.382	1.00	28.83	lite
ATOM	1788	N	ARG	1192	55.958	11.209	-12.863	1.00	18.01	lite
ATOM	1790	CA	ARG	1192	56.736	10.027	-13.061	1.00	18.01	lite
ATOM	1791	CB	ARG	1192	57.069	10.057	-14.569	1.00	15.90	lite
ATOM	1792	CG	ARG	1192	57.978	9.059	-15.288	1.00	15.90	lite
ATOM	1793	CD	ARG	1192	59.142	9.877	-15.694	1.00	15.90	lite
ATOM	1794	NE	ARG	1192	59.974	8.942	-16.357	1.00	15.90	lite
ATOM	1796	CZ	ARG	1192	61.098	9.306	-16.947	1.00	15.90	lite
ATOM	1797	NH1	ARG	1192	61.541	10.569	-16.973	1.00	15.90	lite
ATOM	1800	NH2	ARG	1192	61.785	8.359	-17.559	1.00	15.90	lite
ATOM	1803	C	ARG	1192	57.911	10.139	-12.082	1.00	18.01	lite
ATOM	1804	O	ARG	1192	59.033	9.716	-12.396	1.00	15.90	lite
ATOM	1805	N	HIS	1193	57.750	10.674	-10.854	1.00	12.99	lite
ATOM	1807	CA	HIS	1193	58.918	10.891	-10.021	1.00	12.99	lite

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ATOM	1808	CB	HIS	1193	59.644	12.157	-10.391	1.00	21.39	lite
ATOM	1809	CG	HIS	1193	60.449	12.057	-11.655	1.00	21.39	lite
ATOM	1810	CD2	HIS	1193	60.253	12.816	-12.772	1.00	21.39	lite
ATOM	1811	ND1	HIS	1193	61.448	11.245	-11.883	1.00	21.39	lite
ATOM	1813	CE1	HIS	1193	61.888	11.458	-13.091	1.00	21.39	lite
ATOM	1814	NE2	HIS	1193	61.155	12.407	-13.600	1.00	21.39	lite
ATOM	1816	C	HIS	1193	59.061	10.920	-8.528	1.00	12.99	lite
ATOM	1817	O	HIS	1193	60.235	10.854	-8.161	1.00	21.39	lite
ATOM	1818	N	ASN	1194	58.194	11.031	-7.535	1.00	19.45	lite
ATOM	1820	CA	ASN	1194	58.612	10.871	-6.113	1.00	19.45	lite
ATOM	1821	CB	ASN	1194	59.063	9.406	-5.910	1.00	32.31	lite
ATOM	1822	CG	ASN	1194	58.970	9.060	-4.428	1.00	32.31	lite
ATOM	1823	OD1	ASN	1194	57.935	8.594	-3.973	1.00	32.31	lite
ATOM	1824	ND2	ASN	1194	59.969	9.280	-3.559	1.00	32.31	lite
ATOM	1827	C	ASN	1194	59.659	11.830	-5.523	1.00	19.45	lite
ATOM	1828	O	ASN	1194	59.177	12.916	-5.257	1.00	32.31	lite
ATOM	1829	N	SER	1195	60.984	11.650	-5.286	1.00	2.00	lite
ATOM	1831	CA	SER	1195	61.852	12.653	-4.647	1.00	2.00	lite
ATOM	1832	CB	SER	1195	63.063	11.978	-4.145	1.00	18.15	lite
ATOM	1833	OG	SER	1195	64.269	12.736	-3.941	1.00	18.15	lite
ATOM	1835	C	SER	1195	62.335	13.885	-5.415	1.00	2.00	lite
ATOM	1836	O	SER	1195	62.817	13.736	-6.527	1.00	18.15	lite
ATOM	1837	N	TYR	1196	62.292	15.118	-4.897	1.00	21.16	lite
ATOM	1839	CA	TYR	1196	62.787	16.372	-5.533	1.00	21.16	lite
ATOM	1840	CB	TYR	1196	61.655	17.333	-5.963	1.00	13.67	lite
ATOM	1841	CG	TYR	1196	60.840	16.804	-7.141	1.00	13.67	lite
ATOM	1842	CD1	TYR	1196	61.020	17.318	-8.432	1.00	13.67	lite
ATOM	1843	CE1	TYR	1196	60.366	16.736	-9.511	1.00	13.67	lite
ATOM	1844	CD2	TYR	1196	60.000	15.729	-6.918	1.00	13.67	lite
ATOM	1845	CE2	TYR	1196	59.351	15.149	-7.988	1.00	13.67	lite
ATOM	1846	CZ	TYR	1196	59.546	15.659	-9.260	1.00	13.67	lite
ATOM	1847	OH	TYR	1196	58.904	15.056	-10.309	1.00	13.67	lite
ATOM	1849	C	TYR	1196	63.685	17.172	-4.593	1.00	21.16	lite
ATOM	1850	O	TYR	1196	63.334	17.585	-3.505	1.00	13.67	lite
ATOM	1851	N	THR	1197	64.896	17.422	-4.987	1.00	10.69	lite
ATOM	1853	CA	THR	1197	65.881	17.993	-4.093	1.00	10.69	lite
ATOM	1854	CB	THR	1197	67.071	17.066	-3.807	1.00	18.47	lite
ATOM	1855	OG1	THR	1197	66.439	15.938	-3.238	1.00	18.47	lite
ATOM	1857	CG2	THR	1197	68.178	17.619	-2.930	1.00	18.47	lite
ATOM	1858	C	THR	1197	66.481	19.201	-4.698	1.00	10.69	lite
ATOM	1859	O	THR	1197	66.881	19.176	-5.856	1.00	18.47	lite
ATOM	1860	N	CYS	1198	66.670	20.187	-3.845	1.00	10.83	lite
ATOM	1862	CA	CYS	1198	67.179	21.437	-4.256	1.00	10.83	lite
ATOM	1863	C	CYS	1198	68.470	21.520	-3.530	1.00	10.83	lite
ATOM	1864	O	CYS	1198	68.491	21.937	-2.395	1.00	20.33	lite
ATOM	1865	CB	CYS	1198	66.200	22.471	-3.829	1.00	20.33	lite
ATOM	1866	SG	CYS	1198	66.894	23.999	-4.402	1.00	20.33	lite
ATOM	1867	N	GLU	1199	69.577	21.093	-4.087	1.00	8.80	lite
ATOM	1869	CA	GLU	1199	70.877	21.177	-3.432	1.00	8.80	lite
ATOM	1870	CB	GLU	1199	71.534	19.907	-3.852	1.00	30.85	lite
ATOM	1871	CG	GLU	1199	73.017	19.673	-3.695	1.00	30.85	lite
ATOM	1872	CD	GLU	1199	73.379	18.198	-3.920	1.00	30.85	lite
ATOM	1873	OE1	GLU	1199	72.844	17.334	-3.191	1.00	30.85	lite
ATOM	1874	OE2	GLU	1199	74.193	17.927	-4.822	1.00	30.85	lite
ATOM	1875	C	GLU	1199	71.725	22.422	-3.699	1.00	8.80	lite
ATOM	1876	O	GLU	1199	72.254	22.698	-4.785	1.00	30.85	lite
ATOM	1877	N	ALA	1200	71.889	23.324	-2.776	1.00	15.83	lite
ATOM	1879	CA	ALA	1200	72.740	24.495	-3.018	1.00	15.83	lite
ATOM	1880	CB	ALA	1200	72.255	25.744	-2.301	1.00	6.70	lite
ATOM	1881	C	ALA	1200	74.073	24.166	-2.451	1.00	15.83	lite
ATOM	1882	O	ALA	1200	74.184	23.388	-1.512	1.00	6.70	lite
ATOM	1883	N	THR	1201	75.103	24.690	-3.056	1.00	12.85	lite
ATOM	1885	CA	THR	1201	76.463	24.531	-2.535	1.00	12.85	lite
ATOM	1886	CB	THR	1201	77.289	23.737	-3.537	1.00	22.03	lite
ATOM	1887	OG1	THR	1201	76.673	22.471	-3.645	1.00	22.03	lite
ATOM	1889	CG2	THR	1201	78.740	23.546	-3.123	1.00	22.03	lite
ATOM	1890	C	THR	1201	77.028	25.954	-2.358	1.00	12.85	lite

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ATOM	1891	O	THR	1201	76.874	26.772	-3.279	1.00	22.03	lite
ATOM	1892	N	HIS	1202	77.681	26.367	-1.267	1.00	16.21	lite
ATOM	1894	CA	HIS	1202	78.136	27.767	-1.086	1.00	16.21	lite
ATOM	1895	CB	HIS	1202	76.997	28.601	-0.504	1.00	17.54	lite
ATOM	1896	CG	HIS	1202	77.139	30.083	-0.225	1.00	17.54	lite
ATOM	1897	CD2	HIS	1202	77.237	30.612	1.037	1.00	17.54	lite
ATOM	1898	ND1	HIS	1202	77.104	31.098	-1.067	1.00	17.54	lite
ATOM	1900	CE1	HIS	1202	77.168	32.203	-0.354	1.00	17.54	lite
ATOM	1901	NE2	HIS	1202	77.252	31.905	0.925	1.00	17.54	lite
ATOM	1903	C	HIS	1202	79.330	27.889	-0.140	1.00	16.21	lite
ATOM	1904	O	HIS	1202	79.404	27.080	0.785	1.00	17.54	lite
ATOM	1905	N	LYS	1203	80.173	28.946	-0.236	1.00	30.50	lite
ATOM	1907	CA	LYS	1203	81.354	29.170	0.635	1.00	30.50	lite
ATOM	1908	CB	LYS	1203	81.883	30.557	0.315	1.00	29.49	lite
ATOM	1909	CG	LYS	1203	82.080	31.512	1.497	1.00	29.49	lite
ATOM	1910	CD	LYS	1203	83.539	31.564	1.983	1.00	29.49	lite
ATOM	1911	CE	LYS	1203	83.821	32.750	2.908	1.00	29.49	lite
ATOM	1912	NZ	LYS	1203	83.361	33.971	2.264	1.00	29.49	lite
ATOM	1916	C	LYS	1203	81.186	29.017	2.147	1.00	30.50	lite
ATOM	1917	O	LYS	1203	82.156	28.811	2.858	1.00	29.49	lite
ATOM	1918	N	THR	1204	79.960	29.146	2.676	1.00	26.10	lite
ATOM	1920	CA	THR	1204	79.678	29.016	4.104	1.00	26.10	lite
ATOM	1921	CB	THR	1204	78.476	29.921	4.378	1.00	33.12	lite
ATOM	1922	OG1	THR	1204	77.363	29.447	3.627	1.00	33.12	lite
ATOM	1924	CG2	THR	1204	78.740	31.332	3.914	1.00	33.12	lite
ATOM	1925	C	THR	1204	79.446	27.573	4.625	1.00	26.10	lite
ATOM	1926	O	THR	1204	79.170	27.292	5.810	1.00	33.12	lite
ATOM	1927	N	SER	1205	79.474	26.590	3.753	1.00	22.64	lite
ATOM	1929	CA	SER	1205	79.466	25.210	4.217	1.00	22.64	lite
ATOM	1930	CB	SER	1205	78.082	24.563	4.500	1.00	38.40	lite
ATOM	1931	OG	SER	1205	78.243	23.123	4.768	1.00	38.40	lite
ATOM	1933	C	SER	1205	80.079	24.272	3.215	1.00	22.64	lite
ATOM	1934	O	SER	1205	79.894	24.392	1.988	1.00	38.40	lite
ATOM	1935	N	THR	1206	80.819	23.389	3.925	1.00	41.32	lite
ATOM	1937	CA	THR	1206	81.595	22.211	3.409	1.00	41.32	lite
ATOM	1938	CB	THR	1206	82.223	21.574	4.719	1.00	30.51	lite
ATOM	1939	OG1	THR	1206	83.048	22.715	5.166	1.00	30.51	lite
ATOM	1941	CG2	THR	1206	82.946	20.188	4.630	1.00	30.51	lite
ATOM	1942	C	THR	1206	80.716	21.245	2.591	1.00	41.32	lite
ATOM	1943	O	THR	1206	80.913	21.007	1.387	1.00	30.51	lite
ATOM	1944	N	SER	1207	79.684	20.688	3.251	1.00	20.15	lite
ATOM	1946	CA	SER	1207	78.693	19.841	2.566	1.00	20.15	lite
ATOM	1947	CB	SER	1207	77.971	19.015	3.537	1.00	24.28	lite
ATOM	1948	OG	SER	1207	77.770	19.892	4.629	1.00	24.28	lite
ATOM	1950	C	SER	1207	77.637	20.650	1.852	1.00	20.15	lite
ATOM	1951	O	SER	1207	77.362	21.764	2.310	1.00	24.28	lite
ATOM	1952	N	PRO	1208	76.922	20.217	0.802	1.00	30.25	lite
ATOM	1953	CD	PRO	1208	77.091	18.957	0.066	1.00	21.52	lite
ATOM	1954	CA	PRO	1208	75.870	21.061	0.191	1.00	30.25	lite
ATOM	1955	CB	PRO	1208	75.447	20.277	-1.016	1.00	21.52	lite
ATOM	1956	CG	PRO	1208	76.625	19.336	-1.333	1.00	21.52	lite
ATOM	1957	C	PRO	1208	74.701	21.364	1.127	1.00	30.25	lite
ATOM	1958	O	PRO	1208	74.376	20.568	2.012	1.00	21.52	lite
ATOM	1959	N	ILE	1209	74.037	22.512	0.991	1.00	26.33	lite
ATOM	1961	CA	ILE	1209	72.810	22.834	1.738	1.00	26.33	lite
ATOM	1962	CB	ILE	1209	72.783	24.385	1.855	1.00	16.40	lite
ATOM	1963	CG2	ILE	1209	71.499	24.853	2.521	1.00	16.40	lite
ATOM	1964	CG1	ILE	1209	73.964	24.846	2.707	1.00	16.40	lite
ATOM	1965	CD1	ILE	1209	74.463	26.311	2.558	1.00	16.40	lite
ATOM	1966	C	ILE	1209	71.666	22.218	0.906	1.00	26.33	lite
ATOM	1967	O	ILE	1209	71.400	22.646	-0.211	1.00	16.40	lite
ATOM	1968	N	VAL	1210	71.020	21.116	1.280	1.00	17.99	lite
ATOM	1970	CA	VAL	1210	69.952	20.544	0.452	1.00	17.99	lite
ATOM	1971	CB	VAL	1210	70.171	19.000	0.204	1.00	20.76	lite
ATOM	1972	CG1	VAL	1210	71.672	18.692	0.294	1.00	20.76	lite
ATOM	1973	CG2	VAL	1210	69.376	18.133	1.163	1.00	20.76	lite
ATOM	1974	C	VAL	1210	68.586	20.767	1.098	1.00	17.99	lite

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ATOM	1975	O	VAL	1210	68.436	20.823	2.327	1.00	20.76	lite
ATOM	1976	N	LYS	1211	67.549	20.898	0.299	1.00	11.13	lite
ATOM	1978	CA	LYS	1211	66.199	20.982	0.787	1.00	11.13	lite
ATOM	1979	CB	LYS	1211	65.757	22.382	0.645	1.00	15.55	lite
ATOM	1980	CG	LYS	1211	65.528	22.901	2.042	1.00	15.55	lite
ATOM	1981	CD	LYS	1211	64.086	23.297	2.380	1.00	15.55	lite
ATOM	1982	CE	LYS	1211	63.766	23.329	3.886	1.00	15.55	lite
ATOM	1983	NZ	LYS	1211	64.558	24.260	4.693	1.00	15.55	lite
ATOM	1987	C	LYS	1211	65.388	20.047	-0.070	1.00	11.13	lite
ATOM	1988	O	LYS	1211	65.489	20.162	-1.285	1.00	15.55	lite
ATOM	1989	N	SER	1212	64.601	19.088	0.379	1.00	8.49	lite
ATOM	1991	CA	SER	1212	63.831	18.264	-0.574	1.00	8.49	lite
ATOM	1992	CB	SER	1212	64.413	16.899	-0.823	1.00	14.25	lite
ATOM	1993	OG	SER	1212	65.591	16.683	-0.104	1.00	14.25	lite
ATOM	1995	C	SER	1212	62.382	17.941	-0.276	1.00	8.49	lite
ATOM	1996	O	SER	1212	61.902	18.382	0.747	1.00	14.25	lite
ATOM	1997	N	PHE	1213	61.631	17.242	-1.128	1.00	15.28	lite
ATOM	1999	CA	PHE	1213	60.281	16.778	-0.814	1.00	15.28	lite
ATOM	2000	CB	PHE	1213	59.152	17.807	-1.159	1.00	19.52	lite
ATOM	2001	CG	PHE	1213	58.726	18.164	-2.589	1.00	19.52	lite
ATOM	2002	CD1	PHE	1213	57.742	17.400	-3.231	1.00	19.52	lite
ATOM	2003	CD2	PHE	1213	59.359	19.209	-3.260	1.00	19.52	lite
ATOM	2004	CE1	PHE	1213	57.361	17.668	-4.545	1.00	19.52	lite
ATOM	2005	CE2	PHE	1213	58.983	19.481	-4.564	1.00	19.52	lite
ATOM	2006	CZ	PHE	1213	58.007	18.705	-5.203	1.00	19.52	lite
ATOM	2007	C	PHE	1213	59.928	15.517	-1.564	1.00	15.28	lite
ATOM	2008	O	PHE	1213	60.477	15.319	-2.652	1.00	19.52	lite
ATOM	2009	N	ASN	1214	59.030	14.655	-1.095	1.00	6.06	lite
ATOM	2011	CA	ASN	1214	58.633	13.518	-1.913	1.00	6.06	lite
ATOM	2012	CB	ASN	1214	58.617	12.220	-1.113	1.00	30.24	lite
ATOM	2013	CG	ASN	1214	59.931	11.943	-0.370	1.00	30.24	lite
ATOM	2014	OD1	ASN	1214	60.717	12.835	0.003	1.00	30.24	lite
ATOM	2015	ND2	ASN	1214	60.259	10.671	-0.102	1.00	30.24	lite
ATOM	2018	C	ASN	1214	57.238	13.738	-2.447	1.00	6.06	lite
ATOM	2019	O	ASN	1214	56.408	14.097	-1.624	1.00	30.24	lite
ATOM	2020	N	GLU	1215	56.984	13.614	-3.746	1.00	22.37	lite
ATOM	2022	CA	GLU	1215	55.631	13.717	-4.284	1.00	22.37	lite
ATOM	2023	CB	GLU	1215	55.660	13.296	-5.800	1.00	22.49	lite
ATOM	2024	CG	GLU	1215	54.275	13.285	-6.450	1.00	22.49	lite
ATOM	2025	CD	GLU	1215	54.202	12.569	-7.788	1.00	22.49	lite
ATOM	2026	OE1	GLU	1215	53.489	11.583	-7.962	1.00	22.49	lite
ATOM	2027	OE2	GLU	1215	54.879	12.993	-8.707	1.00	22.49	lite
ATOM	2028	C	GLU	1215	54.581	12.902	-3.489	1.00	22.37	lite
ATOM	2029	OT1	GLU	1215	53.498	13.466	-3.318	1.00	22.49	lite
ATOM	2030	OT2	GLU	1215	54.827	11.762	-3.014	1.00	22.49	lite
ATOM	2031	CB	ASP	2001	57.717	72.209	-8.554	1.00	54.94	heav
ATOM	2032	CG	ASP	2001	59.012	72.460	-7.733	1.00	54.94	heav
ATOM	2033	OD1	ASP	2001	59.772	71.479	-7.469	1.00	54.94	heav
ATOM	2034	OD2	ASP	2001	59.259	73.650	-7.356	1.00	54.94	heav
ATOM	2035	C	ASP	2001	57.695	70.499	-10.371	1.00	28.53	heav
ATOM	2036	O	ASP	2001	56.745	70.325	-11.152	1.00	54.94	heav
ATOM	2039	N	ASP	2001	57.702	69.788	-7.907	1.00	28.53	heav
ATOM	2041	CA	ASP	2001	57.280	70.761	-8.908	1.00	28.53	heav
ATOM	2042	N	VAL	2002	58.952	70.437	-10.870	1.00	24.12	heav
ATOM	2044	CA	VAL	2002	59.181	69.982	-12.273	1.00	24.12	heav
ATOM	2045	CB	VAL	2002	60.600	70.418	-12.807	1.00	13.56	heav
ATOM	2046	CG1	VAL	2002	60.598	70.140	-14.308	1.00	13.56	heav
ATOM	2047	CG2	VAL	2002	60.952	71.901	-12.552	1.00	13.56	heav
ATOM	2048	C	VAL	2002	59.080	68.429	-12.322	1.00	24.12	heav
ATOM	2049	O	VAL	2002	59.608	67.779	-11.437	1.00	13.56	heav
ATOM	2050	N	GLN	2003	58.318	67.743	-13.153	1.00	11.12	heav
ATOM	2052	CA	GLN	2003	58.347	66.279	-13.305	1.00	11.12	heav
ATOM	2053	CB	GLN	2003	57.169	65.465	-12.680	1.00	28.00	heav
ATOM	2054	CG	GLN	2003	56.989	65.344	-11.165	1.00	28.00	heav
ATOM	2055	CD	GLN	2003	55.511	65.483	-10.682	1.00	28.00	heav
ATOM	2056	OE1	GLN	2003	55.290	65.481	-9.453	1.00	28.00	heav
ATOM	2057	NE2	GLN	2003	54.398	65.688	-11.426	1.00	28.00	heav

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ATOM	2060	C	GLN	2003	58.200	66.039	-14.811	1.00	11.12	heav
ATOM	2061	O	GLN	2003	57.480	66.704	-15.556	1.00	28.00	heav
ATOM	2062	N	LEU	2004	58.942	65.077	-15.295	1.00	4.79	heav
ATOM	2064	CA	LEU	2004	58.917	64.738	-16.686	1.00	4.79	heav
ATOM	2065	CB	LEU	2004	60.322	64.618	-17.187	1.00	9.62	heav
ATOM	2066	CG	LEU	2004	61.280	65.815	-17.072	1.00	9.62	heav
ATOM	2067	CD1	LEU	2004	62.207	65.800	-18.262	1.00	9.62	heav
ATOM	2068	CD2	LEU	2004	60.511	67.136	-17.069	1.00	9.62	heav
ATOM	2069	C	LEU	2004	58.224	63.432	-16.833	1.00	4.79	heav
ATOM	2070	O	LEU	2004	58.551	62.589	-16.016	1.00	9.62	heav
ATOM	2071	N	GLN	2005	57.282	63.143	-17.727	1.00	2.00	heav
ATOM	2073	CA	GLN	2005	56.730	61.798	-17.783	1.00	2.00	heav
ATOM	2074	CB	GLN	2005	55.427	61.724	-17.157	1.00	21.94	heav
ATOM	2075	CG	GLN	2005	55.637	60.739	-16.056	1.00	21.94	heav
ATOM	2076	CD	GLN	2005	54.389	60.408	-15.201	1.00	21.94	heav
ATOM	2077	OE1	GLN	2005	53.612	61.248	-14.645	1.00	21.94	heav
ATOM	2078	NE2	GLN	2005	54.218	59.078	-15.093	1.00	21.94	heav
ATOM	2081	C	GLN	2005	56.560	61.220	-19.155	1.00	2.00	heav
ATOM	2082	O	GLN	2005	55.840	61.720	-20.021	1.00	21.94	heav
ATOM	2083	N	GLN	2006	57.320	60.175	-19.421	1.00	15.05	heav
ATOM	2085	CA	GLN	2006	57.196	59.637	-20.749	1.00	15.05	heav
ATOM	2086	CB	GLN	2006	58.534	59.096	-21.309	1.00	9.71	heav
ATOM	2087	CG	GLN	2006	59.408	58.273	-20.481	1.00	9.71	heav
ATOM	2088	CD	GLN	2006	60.219	59.143	-19.613	1.00	9.71	heav
ATOM	2089	OE1	GLN	2006	60.020	59.240	-18.426	1.00	9.71	heav
ATOM	2090	NE2	GLN	2006	61.168	59.841	-20.123	1.00	9.71	heav
ATOM	2093	C	GLN	2006	56.170	58.569	-20.937	1.00	15.05	heav
ATOM	2094	O	GLN	2006	55.878	57.816	-20.015	1.00	9.71	heav
ATOM	2095	N	SER	2007	55.553	58.541	-22.108	1.00	2.00	heav
ATOM	2097	CA	SER	2007	54.568	57.504	-22.408	1.00	2.00	heav
ATOM	2098	CB	SER	2007	53.211	57.956	-21.938	1.00	10.02	heav
ATOM	2099	OG	SER	2007	53.005	59.299	-22.342	1.00	10.02	heav
ATOM	2101	C	SER	2007	54.466	57.090	-23.867	1.00	2.00	heav
ATOM	2102	O	SER	2007	54.937	57.734	-24.799	1.00	10.02	heav
ATOM	2103	N	GLY	2008	53.873	55.958	-24.115	1.00	4.21	heav
ATOM	2105	CA	GLY	2008	53.712	55.434	-25.466	1.00	4.21	heav
ATOM	2106	C	GLY	2008	53.782	53.928	-25.475	1.00	4.21	heav
ATOM	2107	O	GLY	2008	53.732	53.401	-24.370	1.00	32.17	heav
ATOM	2108	N	PRO	2009	53.864	53.119	-26.519	1.00	2.00	heav
ATOM	2109	CD	PRO	2009	54.180	53.500	-27.874	1.00	10.59	heav
ATOM	2110	CA	PRO	2009	53.495	51.735	-26.388	1.00	2.00	heav
ATOM	2111	CB	PRO	2009	53.156	51.419	-27.789	1.00	10.59	heav
ATOM	2112	CG	PRO	2009	54.157	52.181	-28.592	1.00	10.59	heav
ATOM	2113	C	PRO	2009	54.546	50.868	-25.725	1.00	2.00	heav
ATOM	2114	O	PRO	2009	55.698	51.279	-25.762	1.00	10.59	heav
ATOM	2115	N	ASP	2010	54.233	49.743	-25.059	1.00	9.05	heav
ATOM	2117	CA	ASP	2010	55.253	48.859	-24.529	1.00	9.05	heav
ATOM	2118	CB	ASP	2010	54.875	48.007	-23.364	1.00	38.31	heav
ATOM	2119	CG	ASP	2010	53.879	48.499	-22.308	1.00	38.31	heav
ATOM	2120	OD1	ASP	2010	54.160	48.326	-21.099	1.00	38.31	heav
ATOM	2121	OD2	ASP	2010	52.779	48.972	-22.670	1.00	38.31	heav
ATOM	2122	C	ASP	2010	55.643	47.795	-25.539	1.00	9.05	heav
ATOM	2123	O	ASP	2010	56.600	47.027	-25.327	1.00	38.31	heav
ATOM	2124	N	LEU	2011	54.890	47.610	-26.619	1.00	7.77	heav
ATOM	2126	CA	LEU	2011	55.292	46.625	-27.591	1.00	7.77	heav
ATOM	2127	CB	LEU	2011	54.546	45.303	-27.345	1.00	7.87	heav
ATOM	2128	CG	LEU	2011	54.818	44.156	-28.374	1.00	7.87	heav
ATOM	2129	CD1	LEU	2011	56.105	43.385	-28.173	1.00	7.87	heav
ATOM	2130	CD2	LEU	2011	53.773	43.121	-28.162	1.00	7.87	heav
ATOM	2131	C	LEU	2011	55.023	47.176	-28.972	1.00	7.77	heav
ATOM	2132	O	LEU	2011	53.960	47.692	-29.261	1.00	7.87	heav
ATOM	2133	N	VAL	2012	56.027	47.208	-29.831	1.00	11.99	heav
ATOM	2135	CA	VAL	2012	55.922	47.718	-31.184	1.00	11.99	heav
ATOM	2136	CB	VAL	2012	56.841	48.986	-31.243	1.00	7.50	heav
ATOM	2137	CG1	VAL	2012	56.792	49.594	-32.628	1.00	7.50	heav
ATOM	2138	CG2	VAL	2012	56.408	50.017	-30.217	1.00	7.50	heav
ATOM	2139	C	VAL	2012	56.375	46.541	-32.104	1.00	11.99	heav

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ATOM	2140	O	VAL	2012	57.359	45.823	-31.857	1.00	7.50	heav
ATOM	2141	N	LYS	2013	55.636	46.263	-33.169	1.00	10.46	heav
ATOM	2143	CA	LYS	2013	55.916	45.156	-34.083	1.00	10.46	heav
ATOM	2144	CB	LYS	2013	54.785	45.031	-35.031	1.00	25.49	heav
ATOM	2145	CG	LYS	2013	54.064	43.716	-35.229	1.00	25.49	heav
ATOM	2146	CD	LYS	2013	53.729	43.592	-36.779	1.00	25.49	heav
ATOM	2147	CE	LYS	2013	54.863	43.382	-37.867	1.00	25.49	heav
ATOM	2148	NZ	LYS	2013	55.568	42.075	-37.781	1.00	25.49	heav
ATOM	2152	C	LYS	2013	57.176	45.468	-34.870	1.00	10.46	heav
ATOM	2153	O	LYS	2013	57.367	46.646	-35.176	1.00	25.49	heav
ATOM	2154	N	PRO	2014	58.094	44.621	-35.294	1.00	2.00	heav
ATOM	2155	CD	PRO	2014	58.018	43.193	-35.186	1.00	7.64	heav
ATOM	2156	CA	PRO	2014	59.294	45.081	-35.992	1.00	2.00	heav
ATOM	2157	CB	PRO	2014	60.002	43.805	-36.210	1.00	7.64	heav
ATOM	2158	CG	PRO	2014	59.495	42.917	-35.092	1.00	7.64	heav
ATOM	2159	C	PRO	2014	59.066	45.929	-37.255	1.00	2.00	heav
ATOM	2160	O	PRO	2014	57.964	46.004	-37.797	1.00	7.64	heav
ATOM	2161	N	SER	2015	60.069	46.672	-37.733	1.00	23.38	heav
ATOM	2163	CA	SER	2015	60.001	47.639	-38.883	1.00	23.38	heav
ATOM	2164	CB	SER	2015	60.053	46.903	-40.247	1.00	22.40	heav
ATOM	2165	OG	SER	2015	58.769	46.527	-40.698	1.00	22.40	heav
ATOM	2167	C	SER	2015	58.802	48.657	-38.936	1.00	23.38	heav
ATOM	2168	O	SER	2015	58.300	49.239	-39.922	1.00	22.40	heav
ATOM	2169	N	GLN	2016	58.298	48.879	-37.732	1.00	17.17	heav
ATOM	2171	CA	GLN	2016	57.308	49.873	-37.503	1.00	17.17	heav
ATOM	2172	CB	GLN	2016	56.429	49.448	-36.453	1.00	33.27	heav
ATOM	2173	CG	GLN	2016	55.376	48.570	-36.927	1.00	33.27	heav
ATOM	2174	CD	GLN	2016	54.220	48.664	-35.924	1.00	33.27	heav
ATOM	2175	OE1	GLN	2016	54.230	48.307	-34.712	1.00	33.27	heav
ATOM	2176	NE2	GLN	2016	53.144	49.211	-36.500	1.00	33.27	heav
ATOM	2179	C	GLN	2016	58.006	51.097	-37.018	1.00	17.17	heav
ATOM	2180	O	GLN	2016	59.226	51.200	-37.073	1.00	33.27	heav
ATOM	2181	N	SER	2017	57.205	51.985	-36.458	1.00	12.33	heav
ATOM	2183	CA	SER	2017	57.655	53.206	-35.853	1.00	12.33	heav
ATOM	2184	CB	SER	2017	57.138	54.389	-36.597	1.00	15.91	heav
ATOM	2185	OG	SER	2017	57.123	53.997	-37.946	1.00	15.91	heav
ATOM	2187	C	SER	2017	57.154	53.303	-34.418	1.00	12.33	heav
ATOM	2188	O	SER	2017	56.036	52.934	-33.990	1.00	15.91	heav
ATOM	2189	N	LEU	2018	58.129	53.818	-33.683	1.00	11.68	heav
ATOM	2191	CA	LEU	2018	57.975	54.097	-32.289	1.00	11.68	heav
ATOM	2192	CB	LEU	2018	59.236	53.761	-31.542	1.00	11.28	heav
ATOM	2193	CG	LEU	2018	59.254	53.985	-30.056	1.00	11.28	heav
ATOM	2194	CD1	LEU	2018	58.070	53.235	-29.485	1.00	11.28	heav
ATOM	2195	CD2	LEU	2018	60.519	53.497	-29.439	1.00	11.28	heav
ATOM	2196	C	LEU	2018	57.694	55.562	-32.119	1.00	11.68	heav
ATOM	2197	O	LEU	2018	58.479	56.397	-32.520	1.00	11.28	heav
ATOM	2198	N	SER	2019	56.583	55.911	-31.555	1.00	13.96	heav
ATOM	2200	CA	SER	2019	56.394	57.295	-31.221	1.00	13.96	heav
ATOM	2201	CB	SER	2019	55.212	57.834	-31.976	1.00	37.87	heav
ATOM	2202	OG	SER	2019	55.019	59.212	-31.631	1.00	37.87	heav
ATOM	2204	C	SER	2019	56.170	57.430	-29.704	1.00	13.96	heav
ATOM	2205	O	SER	2019	55.255	56.775	-29.196	1.00	37.87	heav
ATOM	2206	N	LEU	2020	57.017	58.170	-28.946	1.00	14.84	heav
ATOM	2208	CA	LEU	2020	56.921	58.378	-27.496	1.00	14.84	heav
ATOM	2209	CB	LEU	2020	58.190	57.887	-26.768	1.00	2.00	heav
ATOM	2210	CG	LEU	2020	58.762	56.500	-26.859	1.00	2.00	heav
ATOM	2211	CD1	LEU	2020	59.941	56.434	-25.963	1.00	2.00	heav
ATOM	2212	CD2	LEU	2020	57.786	55.469	-26.409	1.00	2.00	heav
ATOM	2213	C	LEU	2020	56.724	59.882	-27.159	1.00	14.84	heav
ATOM	2214	O	LEU	2020	57.166	60.785	-27.882	1.00	2.00	heav
ATOM	2215	N	THR	2021	56.036	60.174	-26.059	1.00	2.00	heav
ATOM	2217	CA	THR	2021	55.749	61.523	-25.621	1.00	2.00	heav
ATOM	2218	CB	THR	2021	54.245	61.756	-25.440	1.00	8.49	heav
ATOM	2219	OG1	THR	2021	53.633	61.642	-26.701	1.00	8.49	heav
ATOM	2221	CG2	THR	2021	53.897	63.116	-25.007	1.00	8.49	heav
ATOM	2222	C	THR	2021	56.402	61.758	-24.280	1.00	2.00	heav
ATOM	2223	O	THR	2021	56.330	60.904	-23.397	1.00	8.49	heav

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ATOM	2224	N	CYS	2022	57.096	62.882	-24.100	1.00	2.00	heav
ATOM	2226	CA	CYS	2022	57.640	63.325	-22.805	1.00	2.00	heav
ATOM	2227	C	CYS	2022	56.824	64.531	-22.478	1.00	2.00	heav
ATOM	2228	O	CYS	2022	56.771	65.403	-23.317	1.00	2.00	heav
ATOM	2229	CB	CYS	2022	59.027	63.793	-22.884	1.00	2.00	heav
ATOM	2230	SG	CYS	2022	59.657	64.097	-21.256	1.00	2.00	heav
ATOM	2231	N	THR	2023	56.129	64.495	-21.338	1.00	9.51	heav
ATOM	2233	CA	THR	2023	55.100	65.456	-20.841	1.00	9.51	heav
ATOM	2234	CB	THR	2023	53.827	64.742	-20.340	1.00	7.69	heav
ATOM	2235	OG1	THR	2023	53.706	63.571	-21.148	1.00	7.69	heav
ATOM	2237	CG2	THR	2023	52.574	65.538	-20.412	1.00	7.69	heav
ATOM	2238	C	THR	2023	55.672	66.205	-19.652	1.00	9.51	heav
ATOM	2239	O	THR	2023	55.955	65.608	-18.624	1.00	7.69	heav
ATOM	2240	N	VAL	2024	55.894	67.493	-19.750	1.00	6.47	heav
ATOM	2242	CA	VAL	2024	56.628	68.213	-18.744	1.00	6.47	heav
ATOM	2243	CB	VAL	2024	57.605	69.178	-19.433	1.00	8.81	heav
ATOM	2244	CG1	VAL	2024	58.289	70.035	-18.415	1.00	8.81	heav
ATOM	2245	CG2	VAL	2024	58.694	68.419	-20.148	1.00	8.81	heav
ATOM	2246	C	VAL	2024	55.664	68.964	-17.864	1.00	6.47	heav
ATOM	2247	O	VAL	2024	54.874	69.768	-18.296	1.00	8.81	heav
ATOM	2248	N	THR	2025	55.786	68.796	-16.591	1.00	9.60	heav
ATOM	2250	CA	THR	2025	54.897	69.363	-15.625	1.00	9.60	heav
ATOM	2251	CB	THR	2025	54.194	68.337	-14.851	1.00	19.02	heav
ATOM	2252	OG1	THR	2025	54.439	67.007	-15.409	1.00	19.02	heav
ATOM	2254	CG2	THR	2025	52.777	68.784	-14.815	1.00	19.02	heav
ATOM	2255	C	THR	2025	55.612	70.193	-14.600	1.00	9.60	heav
ATOM	2256	O	THR	2025	56.711	69.863	-14.148	1.00	19.02	heav
ATOM	2257	N	GLY	2026	54.991	71.298	-14.181	1.00	27.85	heav
ATOM	2259	CA	GLY	2026	55.626	72.198	-13.234	1.00	27.85	heav
ATOM	2260	C	GLY	2026	56.744	73.042	-13.844	1.00	27.85	heav
ATOM	2261	O	GLY	2026	57.465	73.731	-13.122	1.00	22.86	heav
ATOM	2262	N	TYR	2027	56.954	73.048	-15.163	1.00	21.26	heav
ATOM	2264	CA	TYR	2027	58.042	73.812	-15.846	1.00	21.26	heav
ATOM	2265	CB	TYR	2027	59.412	73.150	-15.723	1.00	19.01	heav
ATOM	2266	CG	TYR	2027	60.680	73.921	-16.091	1.00	19.01	heav
ATOM	2267	CD1	TYR	2027	61.267	74.673	-15.087	1.00	19.01	heav
ATOM	2268	CE1	TYR	2027	62.415	75.356	-15.333	1.00	19.01	heav
ATOM	2269	CD2	TYR	2027	61.223	73.833	-17.353	1.00	19.01	heav
ATOM	2270	CE2	TYR	2027	62.365	74.511	-17.594	1.00	19.01	heav
ATOM	2271	CZ	TYR	2027	62.951	75.261	-16.591	1.00	19.01	heav
ATOM	2272	OH	TYR	2027	64.167	75.928	-16.816	1.00	19.01	heav
ATOM	2274	C	TYR	2027	57.720	73.850	-17.345	1.00	21.26	heav
ATOM	2275	O	TYR	2027	56.999	72.995	-17.890	1.00	19.01	heav
ATOM	2276	N	SER	2028	58.285	74.805	-18.065	1.00	10.40	heav
ATOM	2278	CA	SER	2028	57.836	75.014	-19.420	1.00	10.40	heav
ATOM	2279	CB	SER	2028	57.450	76.491	-19.563	1.00	19.94	heav
ATOM	2280	OG	SER	2028	57.291	76.794	-20.946	1.00	19.94	heav
ATOM	2282	C	SER	2028	58.833	74.620	-20.481	1.00	10.40	heav
ATOM	2283	O	SER	2028	59.984	75.033	-20.354	1.00	19.94	heav
ATOM	2284	N	ILE	2029	58.377	73.966	-21.565	1.00	13.03	heav
ATOM	2286	CA	ILE	2029	59.338	73.484	-22.572	1.00	13.03	heav
ATOM	2287	CB	ILE	2029	58.714	72.549	-23.739	1.00	22.94	heav
ATOM	2288	CG2	ILE	2029	58.421	71.146	-23.223	1.00	22.94	heav
ATOM	2289	CG1	ILE	2029	57.506	73.164	-24.346	1.00	22.94	heav
ATOM	2290	CD1	ILE	2029	57.896	73.627	-25.770	1.00	22.94	heav
ATOM	2291	C	ILE	2029	60.093	74.608	-23.268	1.00	13.03	heav
ATOM	2292	O	ILE	2029	61.202	74.465	-23.799	1.00	22.94	heav
ATOM	2293	N	THR	2030	59.430	75.764	-23.249	1.00	18.46	heav
ATOM	2295	CA	THR	2030	60.052	76.982	-23.767	1.00	18.46	heav
ATOM	2296	CB	THR	2030	58.981	77.994	-24.140	1.00	16.39	heav
ATOM	2297	OG1	THR	2030	57.896	77.926	-23.194	1.00	16.39	heav
ATOM	2299	CG2	THR	2030	58.584	77.740	-25.594	1.00	16.39	heav
ATOM	2300	C	THR	2030	61.026	77.610	-22.779	1.00	18.46	heav
ATOM	2301	O	THR	2030	61.841	78.458	-23.124	1.00	16.39	heav
ATOM	2302	N	SER	2031	60.999	77.363	-21.479	1.00	19.26	heav
ATOM	2304	CA	SER	2031	62.233	77.704	-20.755	1.00	19.26	heav
ATOM	2305	CB	SER	2031	61.980	77.917	-19.323	1.00	33.85	heav

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ATOM	2306	OG	SER	2031	61.008	78.926	-19.110	1.00	33.85	heav
ATOM	2308	C	SER	2031	63.182	76.505	-20.884	1.00	19.26	heav
ATOM	2309	O	SER	2031	62.891	75.527	-21.595	1.00	33.85	heav
ATOM	2310	N	GLY	2032	64.319	76.434	-20.191	1.00	30.04	heav
ATOM	2312	CA	GLY	2032	65.171	75.231	-20.351	1.00	30.04	heav
ATOM	2313	C	GLY	2032	65.913	75.258	-21.672	1.00	30.04	heav
ATOM	2314	O	GLY	2032	65.339	75.368	-22.762	1.00	13.48	heav
ATOM	2315	N	TYR	2033	67.243	75.261	-21.571	1.00	12.16	heav
ATOM	2317	CA	TYR	2033	68.074	75.243	-22.761	1.00	12.16	heav
ATOM	2318	CB	TYR	2033	69.476	75.234	-22.243	1.00	15.95	heav
ATOM	2319	CG	TYR	2033	70.559	74.895	-23.214	1.00	15.95	heav
ATOM	2320	CD1	TYR	2033	70.996	75.765	-24.177	1.00	15.95	heav
ATOM	2321	CE1	TYR	2033	71.970	75.341	-25.084	1.00	15.95	heav
ATOM	2322	CD2	TYR	2033	71.086	73.652	-23.147	1.00	15.95	heav
ATOM	2323	CE2	TYR	2033	72.032	73.242	-24.038	1.00	15.95	heav
ATOM	2324	CZ	TYR	2033	72.476	74.061	-25.022	1.00	15.95	heav
ATOM	2325	OH	TYR	2033	73.294	73.513	-26.016	1.00	15.95	heav
ATOM	2327	C	TYR	2033	67.717	74.039	-23.658	1.00	12.16	heav
ATOM	2328	O	TYR	2033	67.307	74.242	-24.799	1.00	15.95	heav
ATOM	2329	N	SER	2034	67.666	72.789	-23.211	1.00	2.00	heav
ATOM	2331	CA	SER	2034	67.436	71.708	-24.119	1.00	2.00	heav
ATOM	2332	CB	SER	2034	68.725	71.129	-24.557	1.00	14.24	heav
ATOM	2333	OG	SER	2034	69.295	71.863	-25.586	1.00	14.24	heav
ATOM	2335	C	SER	2034	66.622	70.538	-23.675	1.00	2.00	heav
ATOM	2336	O	SER	2034	67.045	69.869	-22.733	1.00	14.24	heav
ATOM	2337	N	TRP	2035	65.591	70.061	-24.348	1.00	5.71	heav
ATOM	2339	CA	TRP	2035	64.933	68.864	-23.879	1.00	5.71	heav
ATOM	2340	CB	TRP	2035	63.503	69.218	-24.084	1.00	2.00	heav
ATOM	2341	CG	TRP	2035	63.086	70.395	-23.233	1.00	2.00	heav
ATOM	2342	CD2	TRP	2035	62.720	70.285	-21.948	1.00	2.00	heav
ATOM	2343	CE2	TRP	2035	62.521	71.604	-21.629	1.00	2.00	heav
ATOM	2344	CE3	TRP	2035	62.544	69.287	-21.017	1.00	2.00	heav
ATOM	2345	CD1	TRP	2035	63.106	71.663	-23.703	1.00	2.00	heav
ATOM	2346	NE1	TRP	2035	62.762	72.372	-22.698	1.00	2.00	heav
ATOM	2348	CZ2	TRP	2035	62.132	71.955	-20.349	1.00	2.00	heav
ATOM	2349	CZ3	TRP	2035	62.153	69.642	-19.738	1.00	2.00	heav
ATOM	2350	CH2	TRP	2035	61.948	70.966	-19.408	1.00	2.00	heav
ATOM	2351	C	TRP	2035	65.428	67.552	-24.524	1.00	5.71	heav
ATOM	2352	O	TRP	2035	65.480	67.406	-25.727	1.00	2.00	heav
ATOM	2353	N	HIS	2036	65.923	66.539	-23.806	1.00	12.07	heav
ATOM	2355	CA	HIS	2036	66.584	65.338	-24.363	1.00	12.07	heav
ATOM	2356	CB	HIS	2036	67.852	65.019	-23.598	1.00	2.00	heav
ATOM	2357	CG	HIS	2036	68.980	65.993	-23.790	1.00	2.00	heav
ATOM	2358	CD2	HIS	2036	70.045	65.689	-24.530	1.00	2.00	heav
ATOM	2359	ND1	HIS	2036	69.145	67.222	-23.353	1.00	2.00	heav
ATOM	2361	CE1	HIS	2036	70.264	67.627	-23.824	1.00	2.00	heav
ATOM	2362	NE2	HIS	2036	70.791	66.702	-24.531	1.00	2.00	heav
ATOM	2364	C	HIS	2036	65.927	63.960	-24.518	1.00	12.07	heav
ATOM	2365	O	HIS	2036	65.106	63.629	-23.697	1.00	2.00	heav
ATOM	2366	N	TRP	2037	66.233	63.094	-25.487	1.00	2.00	heav
ATOM	2368	CA	TRP	2037	65.895	61.686	-25.379	1.00	2.00	heav
ATOM	2369	CB	TRP	2037	65.074	61.284	-26.576	1.00	2.00	heav
ATOM	2370	CG	TRP	2037	63.611	61.680	-26.460	1.00	2.00	heav
ATOM	2371	CD2	TRP	2037	62.592	61.001	-25.781	1.00	2.00	heav
ATOM	2372	CE2	TRP	2037	61.532	61.846	-25.999	1.00	2.00	heav
ATOM	2373	CE3	TRP	2037	62.373	59.848	-25.028	1.00	2.00	heav
ATOM	2374	CD1	TRP	2037	63.200	62.828	-27.038	1.00	2.00	heav
ATOM	2375	NE1	TRP	2037	61.942	62.881	-26.733	1.00	2.00	heav
ATOM	2377	CZ2	TRP	2037	60.300	61.578	-25.503	1.00	2.00	heav
ATOM	2378	CZ3	TRP	2037	61.128	59.596	-24.536	1.00	2.00	heav
ATOM	2379	CH2	TRP	2037	60.107	60.451	-24.770	1.00	2.00	heav
ATOM	2380	C	TRP	2037	67.159	60.797	-25.244	1.00	2.00	heav
ATOM	2381	O	TRP	2037	68.130	60.904	-25.977	1.00	2.00	heav
ATOM	2382	N	ILE	2038	67.300	59.942	-24.242	1.00	3.71	heav
ATOM	2384	CA	ILE	2038	68.456	59.060	-23.961	1.00	3.71	heav
ATOM	2385	CB	ILE	2038	69.193	59.364	-22.596	1.00	2.00	heav
ATOM	2386	CG2	ILE	2038	70.349	58.416	-22.290	1.00	2.00	heav

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ATOM	2387	CG1	ILE	2038	69.750	60.730	-22.647	1.00	2.00	heav
ATOM	2388	CD1	ILE	2038	69.027	61.682	-21.692	1.00	2.00	heav
ATOM	2389	C	ILE	2038	67.818	57.682	-23.789	1.00	3.71	heav
ATOM	2390	O	ILE	2038	66.764	57.576	-23.176	1.00	2.00	heav
ATOM	2391	N	ARG	2039	68.339	56.599	-24.312	1.00	5.17	heav
ATOM	2393	CA	ARG	2039	67.787	55.299	-23.993	1.00	5.17	heav
ATOM	2394	CB	ARG	2039	67.292	54.584	-25.223	1.00	7.95	heav
ATOM	2395	CG	ARG	2039	68.321	54.235	-26.245	1.00	7.95	heav
ATOM	2396	CD	ARG	2039	67.638	53.513	-27.342	1.00	7.95	heav
ATOM	2397	NE	ARG	2039	68.489	53.426	-28.506	1.00	7.95	heav
ATOM	2399	CZ	ARG	2039	68.055	52.867	-29.625	1.00	7.95	heav
ATOM	2400	NH1	ARG	2039	66.810	52.351	-29.750	1.00	7.95	heav
ATOM	2403	NH2	ARG	2039	68.896	52.848	-30.638	1.00	7.95	heav
ATOM	2406	C	ARG	2039	68.761	54.365	-23.280	1.00	5.17	heav
ATOM	2407	O	ARG	2039	69.957	54.537	-23.371	1.00	7.95	heav
ATOM	2408	N	GLN	2040	68.326	53.375	-22.537	1.00	2.00	heav
ATOM	2410	CA	GLN	2040	69.184	52.447	-21.831	1.00	2.00	heav
ATOM	2411	CB	GLN	2040	68.923	52.676	-20.382	1.00	7.47	heav
ATOM	2412	CG	GLN	2040	69.553	51.659	-19.543	1.00	7.47	heav
ATOM	2413	CD	GLN	2040	69.805	52.171	-18.161	1.00	7.47	heav
ATOM	2414	OE1	GLN	2040	68.850	52.443	-17.464	1.00	7.47	heav
ATOM	2415	NE2	GLN	2040	71.001	52.365	-17.638	1.00	7.47	heav
ATOM	2418	C	GLN	2040	68.950	51.008	-22.241	1.00	2.00	heav
ATOM	2419	O	GLN	2040	67.908	50.422	-22.077	1.00	7.47	heav
ATOM	2420	N	PHE	2041	69.895	50.375	-22.841	1.00	2.00	heav
ATOM	2422	CA	PHE	2041	69.664	49.031	-23.295	1.00	2.00	heav
ATOM	2423	CB	PHE	2041	70.677	48.689	-24.349	1.00	2.00	heav
ATOM	2424	CG	PHE	2041	70.672	49.568	-25.577	1.00	2.00	heav
ATOM	2425	CD1	PHE	2041	69.911	49.229	-26.661	1.00	2.00	heav
ATOM	2426	CD2	PHE	2041	71.516	50.649	-25.635	1.00	2.00	heav
ATOM	2427	CE1	PHE	2041	69.996	49.966	-27.809	1.00	2.00	heav
ATOM	2428	CE2	PHE	2041	71.612	51.392	-26.792	1.00	2.00	heav
ATOM	2429	CZ	PHE	2041	70.845	51.031	-27.877	1.00	2.00	heav
ATOM	2430	C	PHE	2041	69.754	48.047	-22.156	1.00	2.00	heav
ATOM	2431	O	PHE	2041	70.443	48.363	-21.209	1.00	2.00	heav
ATOM	2432	N	PRO	2042	69.149	46.862	-22.074	1.00	14.44	heav
ATOM	2433	CD	PRO	2042	68.038	46.440	-22.909	1.00	16.99	heav
ATOM	2434	CA	PRO	2042	69.484	45.740	-21.176	1.00	14.44	heav
ATOM	2435	CB	PRO	2042	68.871	44.587	-21.858	1.00	16.99	heav
ATOM	2436	CG	PRO	2042	68.514	45.058	-23.239	1.00	16.99	heav
ATOM	2437	C	PRO	2042	70.957	45.567	-20.966	1.00	14.44	heav
ATOM	2438	O	PRO	2042	71.678	45.680	-21.939	1.00	16.99	heav
ATOM	2439	N	GLY	2043	71.554	45.313	-19.815	1.00	7.45	heav
ATOM	2441	CA	GLY	2043	73.037	45.350	-19.756	1.00	7.45	heav
ATOM	2442	C	GLY	2043	73.529	46.681	-19.189	1.00	7.45	heav
ATOM	2443	O	GLY	2043	74.565	46.804	-18.561	1.00	21.29	heav
ATOM	2444	N	ASN	2044	72.696	47.678	-19.405	1.00	2.00	heav
ATOM	2446	CA	ASN	2044	72.700	49.012	-18.879	1.00	2.00	heav
ATOM	2447	CB	ASN	2044	72.831	48.878	-17.394	1.00	29.83	heav
ATOM	2448	CG	ASN	2044	71.483	48.312	-16.914	1.00	29.83	heav
ATOM	2449	OD1	ASN	2044	70.401	48.445	-17.481	1.00	29.83	heav
ATOM	2450	ND2	ASN	2044	71.341	47.566	-15.863	1.00	29.83	heav
ATOM	2453	C	ASN	2044	73.602	50.069	-19.419	1.00	2.00	heav
ATOM	2454	O	ASN	2044	73.797	51.140	-18.889	1.00	29.83	heav
ATOM	2455	N	LYS	2045	73.863	49.805	-20.675	1.00	2.00	heav
ATOM	2457	CA	LYS	2045	74.567	50.700	-21.551	1.00	2.00	heav
ATOM	2458	CB	LYS	2045	74.990	49.859	-22.766	1.00	34.48	heav
ATOM	2459	CG	LYS	2045	75.734	50.558	-23.910	1.00	34.48	heav
ATOM	2460	CD	LYS	2045	75.413	50.081	-25.399	1.00	34.48	heav
ATOM	2461	CE	LYS	2045	75.704	51.233	-26.485	1.00	34.48	heav
ATOM	2462	NZ	LYS	2045	75.706	50.869	-27.925	1.00	34.48	heav
ATOM	2466	C	LYS	2045	73.565	51.803	-21.865	1.00	2.00	heav
ATOM	2467	O	LYS	2045	72.416	51.532	-22.184	1.00	34.48	heav
ATOM	2468	N	LEU	2046	73.916	53.066	-21.678	1.00	12.45	heav
ATOM	2470	CA	LEU	2046	73.055	54.203	-22.004	1.00	12.45	heav
ATOM	2471	CB	LEU	2046	73.129	55.268	-20.966	1.00	7.07	heav
ATOM	2472	CG	LEU	2046	72.425	55.186	-19.662	1.00	7.07	heav

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ATOM	2473	CD1	LEU	2046	73.294	55.814	-18.651	1.00	7.07	heav
ATOM	2474	CD2	LEU	2046	71.135	55.945	-19.689	1.00	7.07	heav
ATOM	2475	C	LEU	2046	73.468	54.856	-23.293	1.00	12.45	heav
ATOM	2476	O	LEU	2046	74.650	55.031	-23.520	1.00	7.07	heav
ATOM	2477	N	GLU	2047	72.563	55.264	-24.160	1.00	2.00	heav
ATOM	2479	CA	GLU	2047	72.877	55.947	-25.400	1.00	2.00	heav
ATOM	2480	CB	GLU	2047	72.612	55.005	-26.596	1.00	14.10	heav
ATOM	2481	CG	GLU	2047	72.898	55.636	-28.002	1.00	14.10	heav
ATOM	2482	CD	GLU	2047	72.375	54.840	-29.176	1.00	14.10	heav
ATOM	2483	OE1	GLU	2047	73.135	54.598	-30.117	1.00	14.10	heav
ATOM	2484	OE2	GLU	2047	71.200	54.480	-29.145	1.00	14.10	heav
ATOM	2485	C	GLU	2047	72.073	57.244	-25.565	1.00	2.00	heav
ATOM	2486	O	GLU	2047	70.838	57.317	-25.497	1.00	14.10	heav
ATOM	2487	N	TRP	2048	72.805	58.328	-25.736	1.00	10.56	heav
ATOM	2489	CA	TRP	2048	72.120	59.563	-25.988	1.00	10.56	heav
ATOM	2490	CB	TRP	2048	73.074	60.735	-25.892	1.00	2.00	heav
ATOM	2491	CG	TRP	2048	72.512	62.079	-26.347	1.00	2.00	heav
ATOM	2492	CD2	TRP	2048	72.827	62.747	-27.486	1.00	2.00	heav
ATOM	2493	CE2	TRP	2048	72.040	63.863	-27.388	1.00	2.00	heav
ATOM	2494	CE3	TRP	2048	73.626	62.584	-28.570	1.00	2.00	heav
ATOM	2495	CD1	TRP	2048	71.585	62.754	-25.616	1.00	2.00	heav
ATOM	2496	NE1	TRP	2048	71.323	63.831	-26.298	1.00	2.00	heav
ATOM	2498	CZ2	TRP	2048	72.000	64.843	-28.312	1.00	2.00	heav
ATOM	2499	CZ3	TRP	2048	73.592	63.568	-29.542	1.00	2.00	heav
ATOM	2500	CH2	TRP	2048	72.790	64.685	-29.412	1.00	2.00	heav
ATOM	2501	C	TRP	2048	71.489	59.538	-27.385	1.00	10.56	heav
ATOM	2502	O	TRP	2048	72.175	59.179	-28.344	1.00	2.00	heav
ATOM	2503	N	MET	2049	70.232	59.964	-27.558	1.00	2.00	heav
ATOM	2505	CA	MET	2049	69.600	59.877	-28.843	1.00	2.00	heav
ATOM	2506	CB	MET	2049	68.265	59.264	-28.693	1.00	10.81	heav
ATOM	2507	CG	MET	2049	68.384	57.777	-28.490	1.00	10.81	heav
ATOM	2508	SD	MET	2049	66.688	57.233	-28.304	1.00	10.81	heav
ATOM	2509	CE	MET	2049	66.063	57.073	-29.946	1.00	10.81	heav
ATOM	2510	C	MET	2049	69.462	61.156	-29.572	1.00	2.00	heav
ATOM	2511	O	MET	2049	69.538	61.166	-30.780	1.00	10.81	heav
ATOM	2512	N	GLY	2050	69.315	62.280	-28.924	1.00	2.00	heav
ATOM	2514	CA	GLY	2050	69.186	63.562	-29.592	1.00	2.00	heav
ATOM	2515	C	GLY	2050	68.475	64.571	-28.724	1.00	2.00	heav
ATOM	2516	O	GLY	2050	68.114	64.301	-27.591	1.00	2.00	heav
ATOM	2517	N	TYR	2051	68.227	65.773	-29.181	1.00	2.00	heav
ATOM	2519	CA	TYR	2051	67.543	66.770	-28.384	1.00	2.00	heav
ATOM	2520	CB	TYR	2051	68.495	67.414	-27.414	1.00	2.00	heav
ATOM	2521	CG	TYR	2051	69.651	68.252	-27.939	1.00	2.00	heav
ATOM	2522	CD1	TYR	2051	70.907	67.723	-27.942	1.00	2.00	heav
ATOM	2523	CE1	TYR	2051	71.969	68.506	-28.303	1.00	2.00	heav
ATOM	2524	CD2	TYR	2051	69.471	69.579	-28.323	1.00	2.00	heav
ATOM	2525	CE2	TYR	2051	70.534	70.367	-28.688	1.00	2.00	heav
ATOM	2526	CZ	TYR	2051	71.775	69.809	-28.665	1.00	2.00	heav
ATOM	2527	OH	TYR	2051	72.847	70.560	-28.999	1.00	2.00	heav
ATOM	2529	C	TYR	2051	66.910	67.858	-29.213	1.00	2.00	heav
ATOM	2530	O	TYR	2051	67.355	68.084	-30.324	1.00	2.00	heav
ATOM	2531	N	ILE	2052	65.895	68.524	-28.695	1.00	2.00	heav
ATOM	2533	CA	ILE	2052	65.343	69.679	-29.316	1.00	2.00	heav
ATOM	2534	CB	ILE	2052	63.779	69.511	-29.410	1.00	5.92	heav
ATOM	2535	CG2	ILE	2052	63.043	69.476	-28.083	1.00	5.92	heav
ATOM	2536	CG1	ILE	2052	63.309	70.692	-30.242	1.00	5.92	heav
ATOM	2537	CD1	ILE	2052	61.962	70.593	-30.890	1.00	5.92	heav
ATOM	2538	C	ILE	2052	65.805	70.888	-28.489	1.00	2.00	heav
ATOM	2539	O	ILE	2052	65.662	70.945	-27.281	1.00	5.92	heav
ATOM	2540	N	HIS	2053	66.511	71.843	-29.046	1.00	2.00	heav
ATOM	2542	CA	HIS	2053	66.943	73.001	-28.307	1.00	2.00	heav
ATOM	2543	CB	HIS	2053	67.949	73.602	-29.143	1.00	14.09	heav
ATOM	2544	CG	HIS	2053	68.463	74.943	-28.727	1.00	14.09	heav
ATOM	2545	CD2	HIS	2053	69.249	75.241	-27.658	1.00	14.09	heav
ATOM	2546	ND1	HIS	2053	68.305	76.056	-29.393	1.00	14.09	heav
ATOM	2548	CE1	HIS	2053	68.964	77.023	-28.807	1.00	14.09	heav
ATOM	2549	NE2	HIS	2053	69.526	76.523	-27.758	1.00	14.09	heav

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ATOM	2551	C	HIS	2053	65.817	73.967	-28.010	1.00	2.00	heav
ATOM	2552	O	HIS	2053	64.804	73.892	-28.676	1.00	14.09	heav
ATOM	2553	N	TYR	2054	65.899	74.973	-27.140	1.00	20.02	heav
ATOM	2555	CA	TYR	2054	64.790	75.912	-26.935	1.00	20.02	heav
ATOM	2556	CB	TYR	2054	65.124	76.834	-25.747	1.00	22.34	heav
ATOM	2557	CG	TYR	2054	66.128	77.983	-25.919	1.00	22.34	heav
ATOM	2558	CD1	TYR	2054	65.777	79.235	-26.407	1.00	22.34	heav
ATOM	2559	CE1	TYR	2054	66.693	80.277	-26.557	1.00	22.34	heav
ATOM	2560	CD2	TYR	2054	67.434	77.769	-25.564	1.00	22.34	heav
ATOM	2561	CE2	TYR	2054	68.354	78.801	-25.712	1.00	22.34	heav
ATOM	2562	CZ	TYR	2054	68.010	80.054	-26.209	1.00	22.34	heav
ATOM	2563	OH	TYR	2054	69.010	80.989	-26.453	1.00	22.34	heav
ATOM	2565	C	TYR	2054	64.452	76.777	-28.162	1.00	20.02	heav
ATOM	2566	O	TYR	2054	63.465	77.472	-28.235	1.00	22.34	heav
ATOM	2567	N	SER	2055	65.283	76.842	-29.194	1.00	14.98	heav
ATOM	2569	CA	SER	2055	64.984	77.596	-30.420	1.00	14.98	heav
ATOM	2570	CB	SER	2055	66.182	78.027	-31.128	1.00	10.93	heav
ATOM	2571	CG	SER	2055	66.943	76.863	-31.469	1.00	10.93	heav
ATOM	2573	C	SER	2055	64.245	76.766	-31.462	1.00	14.98	heav
ATOM	2574	O	SER	2055	63.973	77.225	-32.561	1.00	10.93	heav
ATOM	2575	N	ALA	2056	64.059	75.490	-31.097	1.00	8.32	heav
ATOM	2577	CA	ALA	2056	63.395	74.437	-31.828	1.00	8.32	heav
ATOM	2578	CB	ALA	2056	62.195	74.982	-32.598	1.00	5.98	heav
ATOM	2579	C	ALA	2056	64.314	73.717	-32.774	1.00	8.32	heav
ATOM	2580	O	ALA	2056	63.959	72.684	-33.346	1.00	5.98	heav
ATOM	2581	N	GLY	2057	65.521	74.265	-32.900	1.00	5.31	heav
ATOM	2583	CA	GLY	2057	66.562	73.633	-33.663	1.00	5.31	heav
ATOM	2584	C	GLY	2057	66.987	72.302	-33.045	1.00	5.31	heav
ATOM	2585	O	GLY	2057	66.897	72.119	-31.817	1.00	13.12	heav
ATOM	2586	N	THR	2058	67.534	71.372	-33.831	1.00	10.32	heav
ATOM	2588	CA	THR	2058	67.863	70.077	-33.243	1.00	10.32	heav
ATOM	2589	CB	THR	2058	66.838	68.974	-33.655	1.00	16.44	heav
ATOM	2590	OG1	THR	2058	67.003	68.904	-35.062	1.00	16.44	heav
ATOM	2592	CG2	THR	2058	65.386	69.198	-33.276	1.00	16.44	heav
ATOM	2593	C	THR	2058	69.247	69.508	-33.546	1.00	10.32	heav
ATOM	2594	O	THR	2058	70.065	70.082	-34.296	1.00	16.44	heav
ATOM	2595	N	ASN	2059	69.566	68.412	-32.837	1.00	17.46	heav
ATOM	2597	CA	ASN	2059	70.786	67.646	-33.113	1.00	17.46	heav
ATOM	2598	CB	ASN	2059	72.038	68.265	-32.433	1.00	26.43	heav
ATOM	2599	CG	ASN	2059	73.411	67.616	-32.793	1.00	26.43	heav
ATOM	2600	OD1	ASN	2059	73.781	66.566	-32.275	1.00	26.43	heav
ATOM	2601	ND2	ASN	2059	74.306	68.021	-33.681	1.00	26.43	heav
ATOM	2604	C	ASN	2059	70.518	66.244	-32.581	1.00	17.46	heav
ATOM	2605	O	ASN	2059	69.836	66.046	-31.572	1.00	26.43	heav
ATOM	2606	N	TYR	2060	70.931	65.283	-33.393	1.00	2.00	heav
ATOM	2608	CA	TYR	2060	70.631	63.900	-33.120	1.00	2.00	heav
ATOM	2609	CB	TYR	2060	69.668	63.343	-34.123	1.00	5.27	heav
ATOM	2610	CG	TYR	2060	68.368	64.097	-34.395	1.00	5.27	heav
ATOM	2611	CD1	TYR	2060	67.468	64.485	-33.420	1.00	5.27	heav
ATOM	2612	CE1	TYR	2060	66.239	65.049	-33.760	1.00	5.27	heav
ATOM	2613	CD2	TYR	2060	68.023	64.316	-35.706	1.00	5.27	heav
ATOM	2614	CE2	TYR	2060	66.796	64.888	-36.036	1.00	5.27	heav
ATOM	2615	CZ	TYR	2060	65.897	65.241	-35.063	1.00	5.27	heav
ATOM	2616	OH	TYR	2060	64.651	65.689	-35.413	1.00	5.27	heav
ATOM	2618	C	TYR	2060	71.864	63.056	-33.179	1.00	2.00	heav
ATOM	2619	O	TYR	2060	72.798	63.376	-33.880	1.00	5.27	heav
ATOM	2620	N	ASN	2061	71.930	61.953	-32.464	1.00	2.00	heav
ATOM	2622	CA	ASN	2061	73.092	61.081	-32.443	1.00	2.00	heav
ATOM	2623	CB	ASN	2061	72.793	59.989	-31.494	1.00	13.01	heav
ATOM	2624	CG	ASN	2061	73.905	59.024	-31.351	1.00	13.01	heav
ATOM	2625	OD1	ASN	2061	74.525	58.656	-32.319	1.00	13.01	heav
ATOM	2626	ND2	ASN	2061	74.273	58.431	-30.251	1.00	13.01	heav
ATOM	2629	C	ASN	2061	73.291	60.571	-33.847	1.00	2.00	heav
ATOM	2630	O	ASN	2061	72.352	60.031	-34.443	1.00	13.01	heav
ATOM	2631	N	PRO	2062	74.481	60.640	-34.440	1.00	19.15	heav
ATOM	2632	CD	PRO	2062	75.741	60.954	-33.774	1.00	14.84	heav
ATOM	2633	CA	PRO	2062	74.737	60.263	-35.842	1.00	19.15	heav

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ATOM	2634	CB	PRO	2062	76.199	60.505	-36.000	1.00	14.84	heav
ATOM	2635	CG	PRO	2062	76.525	61.521	-34.941	1.00	14.84	heav
ATOM	2636	C	PRO	2062	74.339	58.855	-36.251	1.00	19.15	heav
ATOM	2637	O	PRO	2062	74.085	58.583	-37.405	1.00	14.84	heav
ATOM	2638	N	SER	2063	74.345	57.914	-35.334	1.00	8.99	heav
ATOM	2640	CA	SER	2063	73.850	56.604	-35.631	1.00	8.99	heav
ATOM	2641	CB	SER	2063	74.228	55.697	-34.563	1.00	21.18	heav
ATOM	2642	OG	SER	2063	73.879	56.221	-33.293	1.00	21.18	heav
ATOM	2644	C	SER	2063	72.328	56.639	-35.766	1.00	8.99	heav
ATOM	2645	O	SER	2063	71.861	56.352	-36.862	1.00	21.18	heav
ATOM	2646	N	LEU	2064	71.426	57.021	-34.831	1.00	28.00	heav
ATOM	2648	CA	LEU	2064	69.969	57.103	-35.059	1.00	28.00	heav
ATOM	2649	CB	LEU	2064	69.218	57.784	-33.899	1.00	8.67	heav
ATOM	2650	CG	LEU	2064	69.130	57.013	-32.605	1.00	8.67	heav
ATOM	2651	CD1	LEU	2064	69.170	55.504	-32.861	1.00	8.67	heav
ATOM	2652	CD2	LEU	2064	70.335	57.297	-31.781	1.00	8.67	heav
ATOM	2653	C	LEU	2064	69.713	57.890	-36.328	1.00	28.00	heav
ATOM	2654	O	LEU	2064	68.775	57.640	-37.077	1.00	8.67	heav
ATOM	2655	N	LYS	2065	70.657	58.781	-36.616	1.00	14.92	heav
ATOM	2657	CA	LYS	2065	70.751	59.548	-37.849	1.00	14.92	heav
ATOM	2658	CB	LYS	2065	71.451	58.714	-38.986	1.00	39.45	heav
ATOM	2659	CG	LYS	2065	70.945	57.375	-39.616	1.00	39.45	heav
ATOM	2660	CD	LYS	2065	71.513	57.290	-41.057	1.00	39.45	heav
ATOM	2661	CE	LYS	2065	73.072	57.292	-41.039	1.00	39.45	heav
ATOM	2662	NZ	LYS	2065	73.541	56.148	-40.239	1.00	39.45	heav
ATOM	2666	C	LYS	2065	69.608	60.236	-38.549	1.00	14.92	heav
ATOM	2667	O	LYS	2065	69.465	61.439	-38.403	1.00	39.45	heav
ATOM	2668	N	SER	2066	68.844	59.384	-39.244	1.00	16.12	heav
ATOM	2670	CA	SER	2066	67.760	59.583	-40.205	1.00	16.12	heav
ATOM	2671	CB	SER	2066	68.115	59.072	-41.551	1.00	23.51	heav
ATOM	2672	OG	SER	2066	68.522	57.726	-41.280	1.00	23.51	heav
ATOM	2674	C	SER	2066	66.512	58.783	-39.821	1.00	16.12	heav
ATOM	2675	O	SER	2066	65.425	58.850	-40.427	1.00	23.51	heav
ATOM	2676	N	ARG	2067	66.726	57.848	-38.906	1.00	7.85	heav
ATOM	2678	CA	ARG	2067	65.623	57.204	-38.277	1.00	7.85	heav
ATOM	2679	CB	ARG	2067	66.131	55.983	-37.587	1.00	9.44	heav
ATOM	2680	CG	ARG	2067	66.810	54.826	-38.362	1.00	9.44	heav
ATOM	2681	CD	ARG	2067	67.273	53.783	-37.313	1.00	9.44	heav
ATOM	2682	NE	ARG	2067	66.119	53.305	-36.573	1.00	9.44	heav
ATOM	2684	CZ	ARG	2067	66.158	52.690	-35.425	1.00	9.44	heav
ATOM	2685	NH1	ARG	2067	67.277	52.422	-34.802	1.00	9.44	heav
ATOM	2688	NH2	ARG	2067	65.001	52.359	-34.955	1.00	9.44	heav
ATOM	2691	C	ARG	2067	64.974	58.147	-37.269	1.00	7.85	heav
ATOM	2692	O	ARG	2067	63.771	58.106	-37.133	1.00	9.44	heav
ATOM	2693	N	ILE	2068	65.669	59.044	-36.579	1.00	8.56	heav
ATOM	2695	CA	ILE	2068	65.083	59.784	-35.483	1.00	8.56	heav
ATOM	2696	CB	ILE	2068	66.091	59.851	-34.337	1.00	12.91	heav
ATOM	2697	CG2	ILE	2068	67.134	60.889	-34.488	1.00	12.91	heav
ATOM	2698	CG1	ILE	2068	65.279	60.147	-33.110	1.00	12.91	heav
ATOM	2699	CD1	ILE	2068	66.044	60.575	-31.880	1.00	12.91	heav
ATOM	2700	C	ILE	2068	64.520	61.153	-35.704	1.00	8.56	heav
ATOM	2701	O	ILE	2068	64.987	61.853	-36.562	1.00	12.91	heav
ATOM	2702	N	SER	2069	63.511	61.625	-34.992	1.00	6.11	heav
ATOM	2704	CA	SER	2069	62.947	62.941	-35.183	1.00	6.11	heav
ATOM	2705	CB	SER	2069	61.811	62.871	-36.164	1.00	10.85	heav
ATOM	2706	OG	SER	2069	60.977	64.011	-36.354	1.00	10.85	heav
ATOM	2708	C	SER	2069	62.429	63.374	-33.855	1.00	6.11	heav
ATOM	2709	O	SER	2069	61.709	62.588	-33.266	1.00	10.85	heav
ATOM	2710	N	ILE	2070	62.808	64.523	-33.299	1.00	7.51	heav
ATOM	2712	CA	ILE	2070	62.262	65.038	-32.042	1.00	7.51	heav
ATOM	2713	CB	ILE	2070	63.404	65.328	-31.086	1.00	9.07	heav
ATOM	2714	CG2	ILE	2070	62.872	65.792	-29.760	1.00	9.07	heav
ATOM	2715	CG1	ILE	2070	64.170	64.056	-30.830	1.00	9.07	heav
ATOM	2716	CD1	ILE	2070	65.320	64.230	-29.894	1.00	9.07	heav
ATOM	2717	C	ILE	2070	61.422	66.292	-32.313	1.00	7.51	heav
ATOM	2718	O	ILE	2070	61.765	67.139	-33.098	1.00	9.07	heav
ATOM	2719	N	THR	2071	60.251	66.472	-31.737	1.00	12.67	heav

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ATOM	2721	CA	THR	2071	59.292	67.512	-32.096	1.00	12.67	heav
ATOM	2722	CB	THR	2071	58.323	66.816	-33.079	1.00	10.81	heav
ATOM	2723	OG1	THR	2071	58.818	67.390	-34.255	1.00	10.81	heav
ATOM	2725	CG2	THR	2071	56.815	66.985	-33.007	1.00	10.81	heav
ATOM	2726	C	THR	2071	58.655	68.064	-30.854	1.00	12.67	heav
ATOM	2727	O	THR	2071	58.688	67.432	-29.823	1.00	10.81	heav
ATOM	2728	N	ARG	2072	58.020	69.205	-30.865	1.00	8.11	heav
ATOM	2730	CA	ARG	2072	57.629	69.842	-29.627	1.00	8.11	heav
ATOM	2731	CB	ARG	2072	58.507	71.056	-29.524	1.00	18.35	heav
ATOM	2732	CG	ARG	2072	59.223	71.631	-28.285	1.00	18.35	heav
ATOM	2733	CD	ARG	2072	60.019	72.835	-28.874	1.00	18.35	heav
ATOM	2734	NE	ARG	2072	60.516	73.938	-28.038	1.00	18.35	heav
ATOM	2736	CZ	ARG	2072	60.364	75.226	-28.463	1.00	18.35	heav
ATOM	2737	NH1	ARG	2072	59.776	75.559	-29.620	1.00	18.35	heav
ATOM	2740	NH2	ARG	2072	60.777	76.247	-27.726	1.00	18.35	heav
ATOM	2743	C	ARG	2072	56.161	70.211	-29.668	1.00	8.11	heav
ATOM	2744	O	ARG	2072	55.508	70.164	-30.706	1.00	18.35	heav
ATOM	2745	N	ASP	2073	55.533	70.525	-28.566	1.00	10.74	heav
ATOM	2747	CA	ASP	2073	54.246	71.166	-28.640	1.00	10.74	heav
ATOM	2748	CB	ASP	2073	53.096	70.200	-28.619	1.00	16.95	heav
ATOM	2749	CG	ASP	2073	51.752	70.885	-28.846	1.00	16.95	heav
ATOM	2750	OD1	ASP	2073	51.643	72.103	-28.997	1.00	16.95	heav
ATOM	2751	OD2	ASP	2073	50.766	70.176	-28.891	1.00	16.95	heav
ATOM	2752	C	ASP	2073	54.199	72.003	-27.393	1.00	10.74	heav
ATOM	2753	O	ASP	2073	53.984	71.538	-26.273	1.00	16.95	heav
ATOM	2754	N	THR	2074	54.458	73.270	-27.647	1.00	15.98	heav
ATOM	2756	CA	THR	2074	54.483	74.327	-26.646	1.00	15.98	heav
ATOM	2757	CB	THR	2074	54.876	75.614	-27.401	1.00	17.00	heav
ATOM	2758	OG1	THR	2074	56.223	75.338	-27.719	1.00	17.00	heav
ATOM	2760	CG2	THR	2074	54.768	76.951	-26.662	1.00	17.00	heav
ATOM	2761	C	THR	2074	53.179	74.490	-25.869	1.00	15.98	heav
ATOM	2762	O	THR	2074	53.104	74.471	-24.648	1.00	17.00	heav
ATOM	2763	N	SER	2075	52.102	74.498	-26.648	1.00	13.29	heav
ATOM	2765	CA	SER	2075	50.734	74.694	-26.156	1.00	13.29	heav
ATOM	2766	CB	SER	2075	49.733	74.558	-27.266	1.00	14.67	heav
ATOM	2767	OG	SER	2075	49.826	73.194	-27.682	1.00	14.67	heav
ATOM	2769	C	SER	2075	50.271	73.748	-25.081	1.00	13.29	heav
ATOM	2770	O	SER	2075	49.510	74.121	-24.218	1.00	14.67	heav
ATOM	2771	N	LYS	2076	50.614	72.487	-25.297	1.00	2.00	heav
ATOM	2773	CA	LYS	2076	50.381	71.416	-24.370	1.00	2.00	heav
ATOM	2774	CB	LYS	2076	49.899	70.213	-25.112	1.00	32.09	heav
ATOM	2775	CG	LYS	2076	48.499	70.340	-25.628	1.00	32.09	heav
ATOM	2776	CD	LYS	2076	47.916	68.952	-25.793	1.00	32.09	heav
ATOM	2777	CE	LYS	2076	48.589	68.430	-27.043	1.00	32.09	heav
ATOM	2778	NZ	LYS	2076	48.305	67.011	-27.287	1.00	32.09	heav
ATOM	2782	C	LYS	2076	51.619	71.014	-23.580	1.00	2.00	heav
ATOM	2783	O	LYS	2076	51.536	70.096	-22.771	1.00	32.09	heav
ATOM	2784	N	ASN	2077	52.817	71.576	-23.796	1.00	11.27	heav
ATOM	2786	CA	ASN	2077	54.023	71.308	-22.979	1.00	11.27	heav
ATOM	2787	CB	ASN	2077	53.785	71.651	-21.527	1.00	21.53	heav
ATOM	2788	CG	ASN	2077	54.866	72.587	-21.067	1.00	21.53	heav
ATOM	2789	OD1	ASN	2077	55.259	73.570	-21.739	1.00	21.53	heav
ATOM	2790	ND2	ASN	2077	55.392	72.225	-19.896	1.00	21.53	heav
ATOM	2793	C	ASN	2077	54.636	69.921	-22.964	1.00	11.27	heav
ATOM	2794	O	ASN	2077	55.054	69.321	-21.955	1.00	21.53	heav
ATOM	2795	N	GLN	2078	54.697	69.429	-24.180	1.00	6.61	heav
ATOM	2797	CA	GLN	2078	55.349	68.178	-24.326	1.00	6.61	heav
ATOM	2798	CB	GLN	2078	54.322	67.090	-24.327	1.00	8.48	heav
ATOM	2799	CG	GLN	2078	53.174	67.241	-25.215	1.00	8.48	heav
ATOM	2800	CD	GLN	2078	52.048	66.302	-24.844	1.00	8.48	heav
ATOM	2801	OE1	GLN	2078	51.940	65.677	-23.811	1.00	8.48	heav
ATOM	2802	NE2	GLN	2078	51.085	66.024	-25.668	1.00	8.48	heav
ATOM	2805	C	GLN	2078	56.191	68.139	-25.565	1.00	6.61	heav
ATOM	2806	O	GLN	2078	55.901	68.884	-26.488	1.00	8.48	heav
ATOM	2807	N	PHE	2079	57.320	67.436	-25.550	1.00	5.10	heav
ATOM	2809	CA	PHE	2079	58.032	67.179	-26.756	1.00	5.10	heav
ATOM	2810	CB	PHE	2079	59.421	67.750	-26.624	1.00	2.00	heav

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ATOM	2811	CG	PHE	2079	60.361	67.086	-25.693	1.00	2.00	heav
ATOM	2812	CD1	PHE	2079	61.345	66.321	-26.222	1.00	2.00	heav
ATOM	2813	CD2	PHE	2079	60.238	67.264	-24.345	1.00	2.00	heav
ATOM	2814	CE1	PHE	2079	62.226	65.726	-25.372	1.00	2.00	heav
ATOM	2815	CE2	PHE	2079	61.110	66.677	-23.493	1.00	2.00	heav
ATOM	2816	CZ	PHE	2079	62.102	65.904	-24.012	1.00	2.00	heav
ATOM	2817	C	PHE	2079	57.997	65.659	-27.067	1.00	5.10	heav
ATOM	2818	O	PHE	2079	57.710	64.776	-26.253	1.00	2.00	heav
ATOM	2819	N	PHE	2080	58.279	65.293	-28.303	1.00	2.00	heav
ATOM	2821	CA	PHE	2080	58.011	63.985	-28.836	1.00	2.00	heav
ATOM	2822	CB	PHE	2080	56.934	64.142	-29.912	1.00	10.12	heav
ATOM	2823	CG	PHE	2080	55.619	64.870	-29.484	1.00	10.12	heav
ATOM	2824	CD1	PHE	2080	55.428	66.223	-29.730	1.00	10.12	heav
ATOM	2825	CD2	PHE	2080	54.659	64.200	-28.754	1.00	10.12	heav
ATOM	2826	CE1	PHE	2080	54.332	66.875	-29.242	1.00	10.12	heav
ATOM	2827	CE2	PHE	2080	53.574	64.862	-28.271	1.00	10.12	heav
ATOM	2828	CZ	PHE	2080	53.414	66.192	-28.509	1.00	10.12	heav
ATOM	2829	C	PHE	2080	59.227	63.327	-29.420	1.00	2.00	heav
ATOM	2830	O	PHE	2080	60.029	64.045	-29.994	1.00	10.12	heav
ATOM	2831	N	LEU	2081	59.414	62.009	-29.253	1.00	15.18	heav
ATOM	2833	CA	LEU	2081	60.430	61.222	-29.972	1.00	15.18	heav
ATOM	2834	CB	LEU	2081	61.274	60.312	-29.119	1.00	3.16	heav
ATOM	2835	CG	LEU	2081	62.237	59.414	-29.864	1.00	3.16	heav
ATOM	2836	CD1	LEU	2081	63.630	59.785	-29.538	1.00	3.16	heav
ATOM	2837	CD2	LEU	2081	61.976	58.002	-29.508	1.00	3.16	heav
ATOM	2838	C	LEU	2081	59.866	60.249	-30.998	1.00	15.18	heav
ATOM	2839	O	LEU	2081	59.061	59.384	-30.671	1.00	3.16	heav
ATOM	2840	N	GLN	2082	60.361	60.284	-32.206	1.00	9.16	heav
ATOM	2842	CA	GLN	2082	59.920	59.264	-33.106	1.00	9.16	heav
ATOM	2843	CB	GLN	2082	59.049	59.848	-34.176	1.00	28.25	heav
ATOM	2844	CG	GLN	2082	58.819	58.911	-35.373	1.00	28.25	heav
ATOM	2845	CD	GLN	2082	57.898	59.494	-36.430	1.00	28.25	heav
ATOM	2846	OE1	GLN	2082	56.724	59.695	-36.162	1.00	28.25	heav
ATOM	2847	NE2	GLN	2082	58.271	59.856	-37.650	1.00	28.25	heav
ATOM	2850	C	GLN	2082	61.080	58.577	-33.738	1.00	9.16	heav
ATOM	2851	O	GLN	2082	61.972	59.252	-34.196	1.00	28.25	heav
ATOM	2852	N	LEU	2083	61.060	57.263	-33.705	1.00	4.61	heav
ATOM	2854	CA	LEU	2083	62.054	56.414	-34.331	1.00	4.61	heav
ATOM	2855	CB	LEU	2083	62.653	55.287	-33.449	1.00	11.62	heav
ATOM	2856	CG	LEU	2083	63.933	55.374	-32.650	1.00	11.62	heav
ATOM	2857	CD1	LEU	2083	64.218	54.003	-32.145	1.00	11.62	heav
ATOM	2858	CD2	LEU	2083	65.102	55.870	-33.487	1.00	11.62	heav
ATOM	2859	C	LEU	2083	61.357	55.654	-35.426	1.00	4.61	heav
ATOM	2860	O	LEU	2083	60.404	54.971	-35.073	1.00	11.62	heav
ATOM	2861	N	ASN	2084	61.761	55.725	-36.701	1.00	6.91	heav
ATOM	2863	CA	ASN	2084	61.212	54.889	-37.783	1.00	6.91	heav
ATOM	2864	CB	ASN	2084	61.292	55.648	-39.089	1.00	15.54	heav
ATOM	2865	CG	ASN	2084	60.526	56.940	-39.060	1.00	15.54	heav
ATOM	2866	OD1	ASN	2084	59.358	57.060	-38.674	1.00	15.54	heav
ATOM	2867	ND2	ASN	2084	61.248	57.982	-39.407	1.00	15.54	heav
ATOM	2870	C	ASN	2084	61.862	53.518	-38.020	1.00	6.91	heav
ATOM	2871	O	ASN	2084	62.975	53.336	-37.549	1.00	15.54	heav
ATOM	2872	N	SER	2085	61.292	52.521	-38.695	1.00	2.00	heav
ATOM	2874	CA	SER	2085	61.987	51.260	-38.994	1.00	2.00	heav
ATOM	2875	CB	SER	2085	63.139	51.442	-39.969	1.00	12.98	heav
ATOM	2876	OG	SER	2085	62.648	52.057	-41.150	1.00	12.98	heav
ATOM	2878	C	SER	2085	62.594	50.500	-37.826	1.00	2.00	heav
ATOM	2879	O	SER	2085	63.665	49.906	-37.893	1.00	12.98	heav
ATOM	2880	N	VAL	2086	61.884	50.470	-36.718	1.00	13.88	heav
ATOM	2882	CA	VAL	2086	62.351	49.888	-35.475	1.00	13.88	heav
ATOM	2883	CB	VAL	2086	61.245	50.458	-34.523	1.00	11.07	heav
ATOM	2884	CG1	VAL	2086	60.268	49.388	-34.162	1.00	11.07	heav
ATOM	2885	CG2	VAL	2086	61.873	51.128	-33.305	1.00	11.07	heav
ATOM	2886	C	VAL	2086	62.639	48.367	-35.483	1.00	13.88	heav
ATOM	2887	O	VAL	2086	61.809	47.473	-35.733	1.00	11.07	heav
ATOM	2888	N	THR	2087	63.894	47.954	-35.385	1.00	2.00	heav
ATOM	2890	CA	THR	2087	64.156	46.520	-35.356	1.00	2.00	heav

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ATOM	2891	CB	THR	2087	65.564	46.074	-35.848	1.00	24.84	heav
ATOM	2892	OG1	THR	2087	66.497	46.659	-34.940	1.00	24.84	heav
ATOM	2894	CG2	THR	2087	65.926	46.508	-37.250	1.00	24.84	heav
ATOM	2895	C	THR	2087	64.111	46.099	-33.928	1.00	2.00	heav
ATOM	2896	O	THR	2087	64.151	46.896	-33.005	1.00	24.84	heav
ATOM	2897	N	THR	2088	64.252	44.809	-33.794	1.00	15.71	heav
ATOM	2899	CA	THR	2088	64.479	44.133	-32.534	1.00	15.71	heav
ATOM	2900	CB	THR	2088	64.734	42.690	-32.894	1.00	14.77	heav
ATOM	2901	OG1	THR	2088	63.872	42.096	-31.985	1.00	14.77	heav
ATOM	2903	CG2	THR	2088	66.162	42.138	-32.832	1.00	14.77	heav
ATOM	2904	C	THR	2088	65.626	44.712	-31.699	1.00	15.71	heav
ATOM	2905	O	THR	2088	65.720	44.524	-30.502	1.00	14.77	heav
ATOM	2906	N	GLU	2089	66.628	45.396	-32.253	1.00	21.89	heav
ATOM	2908	CA	GLU	2089	67.721	46.003	-31.470	1.00	21.89	heav
ATOM	2909	CB	GLU	2089	68.917	46.153	-32.461	1.00	36.48	heav
ATOM	2910	CG	GLU	2089	69.969	47.339	-32.436	1.00	36.48	heav
ATOM	2911	CD	GLU	2089	69.770	48.834	-32.922	1.00	36.48	heav
ATOM	2912	OE1	GLU	2089	68.909	49.125	-33.794	1.00	36.48	heav
ATOM	2913	OE2	GLU	2089	70.537	49.699	-32.427	1.00	36.48	heav
ATOM	2914	C	GLU	2089	67.215	47.340	-30.873	1.00	21.89	heav
ATOM	2915	O	GLU	2089	67.957	47.964	-30.124	1.00	36.48	heav
ATOM	2916	N	ASP	2090	65.999	47.890	-31.131	1.00	15.85	heav
ATOM	2918	CA	ASP	2090	65.605	49.166	-30.560	1.00	15.85	heav
ATOM	2919	CB	ASP	2090	64.805	49.887	-31.605	1.00	15.59	heav
ATOM	2920	CG	ASP	2090	65.719	50.292	-32.771	1.00	15.59	heav
ATOM	2921	OD1	ASP	2090	65.520	49.923	-33.921	1.00	15.59	heav
ATOM	2922	OD2	ASP	2090	66.696	50.977	-32.543	1.00	15.59	heav
ATOM	2923	C	ASP	2090	64.844	48.989	-29.267	1.00	15.85	heav
ATOM	2924	O	ASP	2090	64.268	49.929	-28.755	1.00	15.59	heav
ATOM	2925	N	THR	2091	64.831	47.796	-28.683	1.00	12.69	heav
ATOM	2927	CA	THR	2091	64.126	47.654	-27.427	1.00	12.69	heav
ATOM	2928	CB	THR	2091	63.480	46.182	-27.138	1.00	15.26	heav
ATOM	2929	OG1	THR	2091	64.125	45.572	-26.028	1.00	15.26	heav
ATOM	2931	CG2	THR	2091	63.519	45.253	-28.361	1.00	15.26	heav
ATOM	2932	C	THR	2091	65.128	47.990	-26.345	1.00	12.69	heav
ATOM	2933	O	THR	2091	66.234	47.476	-26.243	1.00	15.26	heav
ATOM	2934	N	ALA	2092	64.662	48.894	-25.522	1.00	2.00	heav
ATOM	2936	CA	ALA	2092	65.416	49.497	-24.492	1.00	2.00	heav
ATOM	2937	CB	ALA	2092	66.412	50.357	-25.153	1.00	2.00	heav
ATOM	2938	C	ALA	2092	64.446	50.315	-23.661	1.00	2.00	heav
ATOM	2939	O	ALA	2092	63.278	50.441	-23.970	1.00	2.00	heav
ATOM	2940	N	THR	2093	64.839	50.850	-22.542	1.00	2.00	heav
ATOM	2942	CA	THR	2093	63.996	51.740	-21.779	1.00	2.00	heav
ATOM	2943	CB	THR	2093	64.254	51.638	-20.285	1.00	12.24	heav
ATOM	2944	OG1	THR	2093	64.076	50.285	-19.912	1.00	12.24	heav
ATOM	2946	CG2	THR	2093	63.237	52.386	-19.473	1.00	12.24	heav
ATOM	2947	C	THR	2093	64.317	53.151	-22.213	1.00	2.00	heav
ATOM	2948	O	THR	2093	65.472	53.492	-22.377	1.00	12.24	heav
ATOM	2949	N	TYR	2094	63.339	54.010	-22.420	1.00	8.16	heav
ATOM	2951	CA	TYR	2094	63.536	55.367	-22.911	1.00	8.16	heav
ATOM	2952	CB	TYR	2094	62.661	55.643	-24.113	1.00	2.00	heav
ATOM	2953	CG	TYR	2094	63.037	54.817	-25.328	1.00	2.00	heav
ATOM	2954	CD1	TYR	2094	62.730	53.458	-25.398	1.00	2.00	heav
ATOM	2955	CE1	TYR	2094	63.084	52.660	-26.468	1.00	2.00	heav
ATOM	2956	CD2	TYR	2094	63.711	55.393	-26.362	1.00	2.00	heav
ATOM	2957	CE2	TYR	2094	64.062	54.594	-27.431	1.00	2.00	heav
ATOM	2958	CZ	TYR	2094	63.756	53.251	-27.481	1.00	2.00	heav
ATOM	2959	OH	TYR	2094	64.155	52.498	-28.545	1.00	2.00	heav
ATOM	2961	C	TYR	2094	63.250	56.443	-21.896	1.00	8.16	heav
ATOM	2962	O	TYR	2094	62.244	56.457	-21.211	1.00	2.00	heav
ATOM	2963	N	TYR	2095	64.168	57.364	-21.765	1.00	5.94	heav
ATOM	2965	CA	TYR	2095	64.021	58.495	-20.894	1.00	5.94	heav
ATOM	2966	CB	TYR	2095	65.118	58.596	-19.866	1.00	6.13	heav
ATOM	2967	CG	TYR	2095	65.446	57.375	-19.025	1.00	6.13	heav
ATOM	2968	CD1	TYR	2095	64.812	57.140	-17.841	1.00	6.13	heav
ATOM	2969	CE1	TYR	2095	65.178	56.043	-17.079	1.00	6.13	heav
ATOM	2970	CD2	TYR	2095	66.436	56.526	-19.443	1.00	6.13	heav

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ATOM	2971	CE2	TYR	2095	66.809	55.435	-18.692	1.00	6.13	heav
ATOM	2972	CZ	TYR	2095	66.168	55.200	-17.511	1.00	6.13	heav
ATOM	2973	OH	TYR	2095	66.514	54.109	-16.769	1.00	6.13	heav
ATOM	2975	C	TYR	2095	64.117	59.771	-21.699	1.00	5.94	heav
ATOM	2976	O	TYP	2095	64.713	59.852	-22.766	1.00	6.13	heav
ATOM	2977	N	CYS	2096	63.503	60.793	-21.143	1.00	9.21	heav
ATOM	2979	CA	CYS	2096	63.542	62.172	-21.605	1.00	9.21	heav
ATOM	2980	C	CYS	2096	64.170	62.950	-20.484	1.00	9.21	heav
ATOM	2981	O	CYS	2096	64.163	62.462	-19.375	1.00	2.00	heav
ATOM	2982	CB	CYS	2096	62.165	62.770	-21.881	1.00	2.00	heav
ATOM	2983	SG	CYS	2096	60.802	62.597	-20.705	1.00	2.00	heav
ATOM	2984	N	ALA	2097	64.761	64.107	-20.664	1.00	2.00	heav
ATOM	2986	CA	ALA	2097	65.430	64.837	-19.590	1.00	2.00	heav
ATOM	2987	CB	ALA	2097	66.798	64.251	-19.248	1.00	2.00	heav
ATOM	2988	C	ALA	2097	65.683	66.303	-19.881	1.00	2.00	heav
ATOM	2989	O	ALA	2097	66.121	66.726	-20.940	1.00	2.00	heav
ATOM	2990	N	ARG	2098	65.356	67.159	-18.970	1.00	2.00	heav
ATOM	2992	CA	ARG	2098	65.712	68.514	-19.137	1.00	2.00	heav
ATOM	2993	CB	ARG	2098	64.992	69.269	-18.070	1.00	16.10	heav
ATOM	2994	CG	ARG	2098	65.301	70.695	-18.324	1.00	16.10	heav
ATOM	2995	CD	ARG	2098	64.558	71.796	-17.626	1.00	16.10	heav
ATOM	2996	NE	ARG	2098	64.275	71.809	-16.194	1.00	16.10	heav
ATOM	2998	CZ	ARG	2098	65.077	71.447	-15.206	1.00	16.10	heav
ATOM	2999	NH1	ARG	2098	66.282	70.981	-15.440	1.00	16.10	heav
ATOM	3002	NH2	ARG	2098	64.691	71.681	-13.962	1.00	16.10	heav
ATOM	3005	C	ARG	2098	67.240	68.636	-19.003	1.00	2.00	heav
ATOM	3006	O	ARG	2098	67.879	68.043	-18.129	1.00	16.10	heav
ATOM	3007	N	GLU	2099	67.861	69.310	-19.960	1.00	2.00	heav
ATOM	3009	CA	GLU	2099	69.216	69.830	-19.808	1.00	2.00	heav
ATOM	3010	CB	GLU	2099	70.066	69.870	-21.089	1.00	13.26	heav
ATOM	3011	CG	GLU	2099	71.479	70.209	-20.684	1.00	13.26	heav
ATOM	3012	CD	GLU	2099	72.580	70.276	-21.712	1.00	13.26	heav
ATOM	3013	OE1	GLU	2099	72.329	70.475	-22.888	1.00	13.26	heav
ATOM	3014	OE2	GLU	2099	73.744	70.139	-21.341	1.00	13.26	heav
ATOM	3015	C	GLU	2099	69.019	71.277	-19.395	1.00	2.00	heav
ATOM	3016	O	GLU	2099	68.149	72.014	-19.840	1.00	13.26	heav
ATOM	3017	N	GLU	2100	69.856	71.748	-18.519	1.00	6.91	heav
ATOM	3019	CA	GLU	2100	69.673	73.054	-17.952	1.00	6.91	heav
ATOM	3020	CB	GLU	2100	68.617	72.911	-17.004	1.00	29.37	heav
ATOM	3021	CG	GLU	2100	67.789	74.136	-16.912	1.00	29.37	heav
ATOM	3022	CD	GLU	2100	67.700	74.614	-15.451	1.00	29.37	heav
ATOM	3023	OE1	GLU	2100	67.919	73.797	-14.491	1.00	29.37	heav
ATOM	3024	OE2	GLU	2100	67.408	75.836	-15.353	1.00	29.37	heav
ATOM	3025	C	GLU	2100	70.898	73.583	-17.260	1.00	6.91	heav
ATOM	3026	O	GLU	2100	71.842	72.917	-16.944	1.00	29.37	heav
ATOM	3027	N	ALA	2101	70.882	74.841	-16.987	1.00	22.04	heav
ATOM	3029	CA	ALA	2101	71.933	75.560	-16.305	1.00	22.04	heav
ATOM	3030	CB	ALA	2101	71.809	76.975	-16.460	1.00	21.12	heav
ATOM	3031	C	ALA	2101	71.864	75.377	-14.811	1.00	22.04	heav
ATOM	3032	O	ALA	2101	70.750	75.722	-14.261	1.00	21.12	heav
ATOM	3033	N	MET	2102	73.045	75.133	-14.236	1.00	29.21	heav
ATOM	3035	CA	MET	2102	73.070	74.779	-12.907	1.00	29.21	heav
ATOM	3036	CB	MET	2102	74.330	74.078	-12.704	1.00	32.83	heav
ATOM	3037	CG	MET	2102	74.108	72.647	-13.150	1.00	32.83	heav
ATOM	3038	SD	MET	2102	72.688	71.760	-12.361	1.00	32.83	heav
ATOM	3039	CE	MET	2102	71.347	72.317	-13.327	1.00	32.83	heav
ATOM	3040	C	MET	2102	72.794	75.899	-11.916	1.00	29.21	heav
ATOM	3041	O	MET	2102	71.597	76.121	-11.733	1.00	32.83	heav
ATOM	3042	N	PRO	2103	73.638	76.796	-11.318	1.00	55.25	heav
ATOM	3043	CD	PRO	2103	75.071	76.918	-11.446	1.00	29.07	heav
ATOM	3044	CA	PRO	2103	73.012	77.795	-10.361	1.00	55.25	heav
ATOM	3045	CB	PRO	2103	74.292	78.567	-9.808	1.00	29.07	heav
ATOM	3046	CG	PRO	2103	75.534	77.679	-10.182	1.00	29.07	heav
ATOM	3047	C	PRO	2103	71.967	78.763	-11.110	1.00	55.25	heav
ATOM	3048	O	PRO	2103	72.309	79.572	-12.036	1.00	29.07	heav
ATOM	3049	N	TYR	2104	70.722	78.276	-10.887	1.00	61.67	heav
ATOM	3051	CA	TYR	2104	69.529	78.715	-11.572	1.00	61.67	heav

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ATOM	3052	CB	TYR	2104	68.312	78.279	-10.609	1.00131.10	heav
ATOM	3053	CG	TYR	2104	68.331	78.776	-9.141	1.00131.10	heav
ATOM	3054	CD1	TYR	2104	67.902	80.080	-8.831	1.00131.10	heav
ATOM	3055	CE1	TYR	2104	67.986	80.542	-7.539	1.00131.10	heav
ATOM	3056	CD2	TYR	2104	68.829	77.910	-8.120	1.00131.10	heav
ATOM	3057	CE2	TYR	2104	68.911	78.373	-6.792	1.00131.10	heav
ATOM	3058	CZ	TYR	2104	68.505	79.693	-6.538	1.00131.10	heav
ATOM	3059	OH	TYR	2104	68.673	80.189	-5.247	1.00131.10	heav
ATOM	3061	C	TYR	2104	69.391	80.178	-12.066	1.00 61.67	heav
ATOM	3062	O	TYR	2104	70.061	80.675	-13.001	1.00131.10	heav
ATOM	3063	N	GLY	2105	68.382	80.846	-11.448	1.00 87.82	heav
ATOM	3065	CA	GLY	2105	68.036	82.266	-11.521	1.00 87.82	heav
ATOM	3066	C	GLY	2105	67.809	82.833	-12.921	1.00 87.82	heav
ATOM	3067	O	GLY	2105	67.185	82.349	-13.868	1.00 45.20	heav
ATOM	3068	N	ASN	2106	68.661	83.839	-13.030	1.00 68.97	heav
ATOM	3070	CA	ASN	2106	68.617	84.697	-14.187	1.00 68.97	heav
ATOM	3071	CB	ASN	2106	68.215	86.074	-13.683	1.00112.27	heav
ATOM	3072	CG	ASN	2106	67.550	86.085	-12.276	1.00112.27	heav
ATOM	3073	OD1	ASN	2106	66.715	85.188	-11.830	1.00112.27	heav
ATOM	3074	ND2	ASN	2106	68.097	87.109	-11.524	1.00112.27	heav
ATOM	3077	C	ASN	2106	70.032	84.636	-14.702	1.00 68.97	heav
ATOM	3078	O	ASN	2106	70.691	85.657	-14.948	1.00112.27	heav
ATOM	3079	N	GLN	2107	70.598	83.457	-14.577	1.00 59.18	heav
ATOM	3081	CA	GLN	2107	72.049	83.413	-14.813	1.00 59.18	heav
ATOM	3082	CB	GLN	2107	72.862	82.934	-13.582	1.00 60.85	heav
ATOM	3083	CG	GLN	2107	72.207	83.326	-12.315	1.00 60.85	heav
ATOM	3084	CD	GLN	2107	72.617	82.451	-11.160	1.00 60.85	heav
ATOM	3085	OE1	GLN	2107	73.725	81.829	-11.231	1.00 60.85	heav
ATOM	3086	NE2	GLN	2107	71.706	82.604	-10.096	1.00 60.85	heav
ATOM	3089	C	GLN	2107	72.111	82.310	-15.861	1.00 59.18	heav
ATOM	3090	O	GLN	2107	71.308	82.360	-16.822	1.00 60.85	heav
ATOM	3091	N	ALA	2108	72.750	81.195	-15.409	1.00 74.72	heav
ATOM	3093	CA	ALA	2108	73.083	80.035	-16.196	1.00 74.72	heav
ATOM	3094	CB	ALA	2108	72.596	80.121	-17.725	1.00 50.50	heav
ATOM	3095	C	ALA	2108	74.610	80.100	-16.129	1.00 74.72	heav
ATOM	3096	O	ALA	2108	75.280	81.112	-16.509	1.00 50.50	heav
ATOM	3097	N	TYR	2109	75.094	79.026	-15.476	1.00 23.97	heav
ATOM	3099	CA	TYR	2109	76.537	78.863	-15.369	1.00 23.97	heav
ATOM	3100	CB	TYR	2109	76.904	78.800	-13.970	1.00 61.29	heav
ATOM	3101	CG	TYR	2109	77.946	79.788	-13.643	1.00 61.29	heav
ATOM	3102	CD1	TYR	2109	77.453	81.043	-13.322	1.00 61.29	heav
ATOM	3103	CE1	TYR	2109	78.321	82.009	-13.114	1.00 61.29	heav
ATOM	3104	CD2	TYR	2109	79.349	79.485	-13.783	1.00 61.29	heav
ATOM	3105	CE2	TYR	2109	80.207	80.563	-13.560	1.00 61.29	heav
ATOM	3106	CZ	TYR	2109	79.676	81.802	-13.232	1.00 61.29	heav
ATOM	3107	OH	TYR	2109	80.488	82.907	-13.072	1.00 61.29	heav
ATOM	3109	C	TYR	2109	77.067	77.591	-16.009	1.00 23.97	heav
ATOM	3110	O	TYR	2109	78.081	77.584	-16.661	1.00 61.29	heav
ATOM	3111	N	TYR	2110	76.452	76.446	-15.755	1.00 12.25	heav
ATOM	3113	CA	TYR	2110	76.857	75.154	-16.371	1.00 12.25	heav
ATOM	3114	CB	TYR	2110	77.766	74.405	-15.439	1.00 17.48	heav
ATOM	3115	CG	TYR	2110	78.396	73.175	-16.042	1.00 17.48	heav
ATOM	3116	CD1	TYR	2110	79.581	73.295	-16.699	1.00 17.48	heav
ATOM	3117	CE1	TYR	2110	80.121	72.149	-17.268	1.00 17.48	heav
ATOM	3118	CD2	TYR	2110	77.781	71.917	-15.956	1.00 17.48	heav
ATOM	3119	CE2	TYR	2110	78.323	70.783	-16.522	1.00 17.48	heav
ATOM	3120	CZ	TYR	2110	79.490	70.934	-17.170	1.00 17.48	heav
ATOM	3121	OH	TYR	2110	80.063	69.818	-17.725	1.00 17.48	heav
ATOM	3123	C	TYR	2110	75.644	74.283	-16.691	1.00 12.25	heav
ATOM	3124	O	TYR	2110	74.761	74.091	-15.869	1.00 17.48	heav
ATOM	3125	N	TYR	2111	75.574	73.778	-17.909	1.00 14.67	heav
ATOM	3127	CA	TYR	2111	74.412	73.053	-18.425	1.00 14.67	heav
ATOM	3128	CB	TYR	2111	74.183	73.348	-19.929	1.00 15.34	heav
ATOM	3129	CG	TYR	2111	73.786	74.808	-20.135	1.00 15.34	heav
ATOM	3130	CD1	TYR	2111	72.454	75.230	-19.990	1.00 15.34	heav
ATOM	3131	CE1	TYR	2111	72.121	76.579	-20.123	1.00 15.34	heav
ATOM	3132	CD2	TYR	2111	74.770	75.738	-20.417	1.00 15.34	heav

ATOM	3133	CE2	TYR	2111	74.444	77.073	-20.551	1.00	15.34	heav
ATOM	3134	CZ	TYR	2111	73.134	77.466	-20.408	1.00	15.34	heav
ATOM	3135	OH	TYR	2111	72.763	78.757	-20.613	1.00	15.34	heav
ATOM	3137	C	TYR	2111	74.611	71.583	-18.246	1.00	14.67	heav
ATOM	3138	O	TYR	2111	75.499	71.060	-18.901	1.00	15.34	heav
ATOM	3139	N	ALA	2112	73.755	70.930	-17.455	1.00	9.09	heav
ATOM	3141	CA	ALA	2112	73.776	69.515	-17.198	1.00	9.09	heav
ATOM	3142	CB	ALA	2112	74.518	69.304	-15.920	1.00	10.71	heav
ATOM	3143	C	ALA	2112	72.377	68.874	-17.138	1.00	9.09	heav
ATOM	3144	O	ALA	2112	71.378	69.559	-16.907	1.00	10.71	heav
ATOM	3145	N	MET	2113	72.192	67.597	-17.505	1.00	7.59	heav
ATOM	3147	CA	MET	2113	70.894	66.929	-17.530	1.00	7.59	heav
ATOM	3148	CB	MET	2113	70.850	65.744	-18.506	1.00	17.45	heav
ATOM	3149	CG	MET	2113	71.285	66.007	-19.930	1.00	17.45	heav
ATOM	3150	SD	MET	2113	71.277	64.565	-20.997	1.00	17.45	heav
ATOM	3151	CE	MET	2113	72.976	64.118	-21.077	1.00	17.45	heav
ATOM	3152	C	MET	2113	70.697	66.421	-16.145	1.00	7.59	heav
ATOM	3153	O	MET	2113	71.173	65.404	-15.673	1.00	17.45	heav
ATOM	3154	N	ASP	2114	70.060	67.299	-15.472	1.00	15.57	heav
ATOM	3156	CA	ASP	2114	69.785	67.170	-14.049	1.00	15.57	heav
ATOM	3157	CB	ASP	2114	69.755	68.579	-13.451	1.00	16.10	heav
ATOM	3158	CG	ASP	2114	68.712	69.553	-14.054	1.00	16.10	heav
ATOM	3159	OD1	ASP	2114	68.276	69.319	-15.200	1.00	16.10	heav
ATOM	3160	OD2	ASP	2114	68.386	70.540	-13.364	1.00	16.10	heav
ATOM	3161	C	ASP	2114	68.487	66.485	-13.681	1.00	15.57	heav
ATOM	3162	O	ASP	2114	68.401	65.776	-12.709	1.00	16.10	heav
ATOM	3163	N	CYS	2115	67.454	66.688	-14.461	1.00	2.00	heav
ATOM	3165	CA	CYS	2115	66.139	66.199	-14.142	1.00	2.00	heav
ATOM	3166	CB	CYS	2115	65.170	67.321	-14.136	1.00	29.21	heav
ATOM	3167	SG	CYS	2115	63.604	66.893	-13.353	1.00	29.21	heav
ATOM	3168	C	CYS	2115	65.622	65.186	-15.129	1.00	2.00	heav
ATOM	3169	O	CYS	2115	65.442	65.597	-16.260	1.00	29.21	heav
ATOM	3170	N	TRP	2116	65.335	63.926	-14.789	1.00	7.53	heav
ATOM	3172	CA	TRP	2116	64.902	62.875	-15.708	1.00	7.53	heav
ATOM	3173	CB	TRP	2116	65.899	61.689	-15.627	1.00	13.08	heav
ATOM	3174	CG	TRP	2116	67.347	61.849	-16.086	1.00	13.08	heav
ATOM	3175	CD2	TRP	2116	67.996	61.024	-16.966	1.00	13.08	heav
ATOM	3176	CE2	TRP	2116	69.233	61.618	-17.073	1.00	13.08	heav
ATOM	3177	CE3	TRP	2116	67.711	59.889	-17.683	1.00	13.08	heav
ATOM	3178	CD1	TRP	2116	68.164	62.874	-15.670	1.00	13.08	heav
ATOM	3179	NE1	TRP	2116	69.304	62.710	-16.299	1.00	13.08	heav
ATOM	3181	CZ2	TRP	2116	70.204	61.085	-17.877	1.00	13.08	heav
ATOM	3182	CZ3	TRP	2116	68.680	59.360	-18.491	1.00	13.08	heav
ATOM	3183	CH2	TRP	2116	69.903	59.954	-18.588	1.00	13.08	heav
ATOM	3184	C	TRP	2116	63.453	62.307	-15.520	1.00	7.53	heav
ATOM	3185	O	TRP	2116	62.814	62.365	-14.484	1.00	13.08	heav
ATOM	3186	N	GLY	2117	62.744	61.802	-16.498	1.00	2.00	heav
ATOM	3188	CA	GLY	2117	61.501	61.125	-16.266	1.00	2.00	heav
ATOM	3189	C	GLY	2117	61.800	59.745	-15.697	1.00	2.00	heav
ATOM	3190	O	GLY	2117	62.956	59.421	-15.406	1.00	7.51	heav
ATOM	3191	N	GLN	2118	60.850	58.834	-15.597	1.00	2.00	heav
ATOM	3193	CA	GLN	2118	61.162	57.599	-14.921	1.00	2.00	heav
ATOM	3194	CB	GLN	2118	59.966	57.337	-14.048	1.00	29.66	heav
ATOM	3195	CG	GLN	2118	60.007	58.278	-12.809	1.00	29.66	heav
ATOM	3196	CD	GLN	2118	58.715	59.099	-12.581	1.00	29.66	heav
ATOM	3197	OE1	GLN	2118	57.611	58.535	-12.557	1.00	29.66	heav
ATOM	3198	NE2	GLN	2118	58.712	60.437	-12.407	1.00	29.66	heav
ATOM	3201	C	GLN	2118	61.560	56.405	-15.747	1.00	2.00	heav
ATOM	3202	O	GLN	2118	62.179	55.434	-15.322	1.00	29.66	heav
ATOM	3203	N	GLY	2119	61.264	56.634	-17.010	1.00	11.48	heav
ATOM	3205	CA	GLY	2119	61.563	55.729	-18.095	1.00	11.48	heav
ATOM	3206	C	GLY	2119	60.377	54.956	-18.612	1.00	11.48	heav
ATOM	3207	O	GLY	2119	59.475	54.624	-17.862	1.00	10.05	heav
ATOM	3208	N	THR	2120	60.261	54.645	-19.891	1.00	7.93	heav
ATOM	3210	CA	THR	2120	59.154	53.820	-20.372	1.00	7.93	heav
ATOM	3211	CB	THR	2120	58.222	54.662	-21.259	1.00	6.01	heav
ATOM	3212	OG1	THR	2120	57.115	53.799	-21.487	1.00	6.01	heav

ATOM	3214	CG2	THR	2120	58.812	55.163	-22.564	1.00	6.01	heav
ATOM	3215	C	THR	2120	59.781	52.666	-21.129	1.00	7.93	heav
ATOM	3216	O	THR	2120	60.750	52.867	-21.849	1.00	6.01	heav
ATOM	3217	N	THR	2121	59.417	51.415	-20.842	1.00	2.00	heav
ATOM	3219	CA	THR	2121	59.971	50.261	-21.557	1.00	2.00	heav
ATOM	3220	CB	THR	2121	59.823	48.924	-20.872	1.00	22.55	heav
ATOM	3221	OG1	THR	2121	60.127	49.212	-19.520	1.00	22.55	heav
ATOM	3223	CG2	THR	2121	60.785	47.807	-21.363	1.00	22.55	heav
ATOM	3224	C	THR	2121	59.308	50.029	-22.874	1.00	2.00	heav
ATOM	3225	O	THR	2121	58.106	50.002	-22.978	1.00	22.55	heav
ATOM	3226	N	VAL	2122	60.108	49.917	-23.913	1.00	9.08	heav
ATOM	3228	CA	VAL	2122	59.574	49.664	-25.227	1.00	9.08	heav
ATOM	3229	CB	VAL	2122	59.874	50.869	-26.101	1.00	2.00	heav
ATOM	3230	CG1	VAL	2122	59.012	50.732	-27.298	1.00	2.00	heav
ATOM	3231	CG2	VAL	2122	59.506	52.168	-25.470	1.00	2.00	heav
ATOM	3232	C	VAL	2122	60.247	48.387	-25.732	1.00	9.08	heav
ATOM	3233	O	VAL	2122	61.474	48.298	-25.777	1.00	2.00	heav
ATOM	3234	N	THR	2123	59.437	47.335	-25.907	1.00	2.00	heav
ATOM	3236	CA	THR	2123	59.831	46.037	-26.415	1.00	2.00	heav
ATOM	3237	CB	THR	2123	59.036	44.847	-25.766	1.00	16.69	heav
ATOM	3238	OG1	THR	2123	59.317	44.820	-24.380	1.00	16.69	heav
ATOM	3240	CG2	THR	2123	59.490	43.481	-26.194	1.00	16.69	heav
ATOM	3241	C	THR	2123	59.468	46.097	-27.881	1.00	2.00	heav
ATOM	3242	O	THR	2123	58.341	46.457	-28.210	1.00	16.69	heav
ATOM	3243	N	VAL	2124	60.370	45.826	-28.810	1.00	12.67	heav
ATOM	3245	CA	VAL	2124	60.082	45.757	-30.236	1.00	12.67	heav
ATOM	3246	CB	VAL	2124	61.114	46.425	-31.079	1.00	17.81	heav
ATOM	3247	CG1	VAL	2124	60.807	46.190	-32.525	1.00	17.81	heav
ATOM	3248	CG2	VAL	2124	61.153	47.889	-30.763	1.00	17.81	heav
ATOM	3249	C	VAL	2124	60.255	44.263	-30.440	1.00	12.67	heav
ATOM	3250	O	VAL	2124	61.347	43.732	-30.166	1.00	17.81	heav
ATOM	3251	N	SER	2125	59.170	43.580	-30.808	1.00	11.96	heav
ATOM	3253	CA	SER	2125	59.171	42.118	-30.979	1.00	11.96	heav
ATOM	3254	CB	SER	2125	58.955	41.258	-29.735	1.00	18.11	heav
ATOM	3255	OG	SER	2125	59.061	39.852	-30.014	1.00	18.11	heav
ATOM	3257	C	SER	2125	58.000	41.728	-31.800	1.00	11.96	heav
ATOM	3258	O	SER	2125	57.151	42.578	-31.993	1.00	18.11	heav
ATOM	3259	N	SER	2126	57.891	40.512	-32.322	1.00	10.22	heav
ATOM	3261	CA	SER	2126	56.655	40.206	-33.029	1.00	10.22	heav
ATOM	3262	CB	SER	2126	56.838	39.425	-34.316	1.00	20.53	heav
ATOM	3263	OG	SER	2126	56.072	40.144	-35.288	1.00	20.53	heav
ATOM	3265	C	SER	2126	55.689	39.393	-32.211	1.00	10.22	heav
ATOM	3266	O	SER	2126	54.529	39.309	-32.566	1.00	20.53	heav
ATOM	3267	N	ALA	2127	56.050	38.737	-31.112	1.00	10.68	heav
ATOM	3269	CA	ALA	2127	55.092	37.946	-30.317	1.00	10.68	heav
ATOM	3270	CB	ALA	2127	55.696	37.424	-29.071	1.00	19.71	heav
ATOM	3271	C	ALA	2127	53.923	38.766	-29.857	1.00	10.68	heav
ATOM	3272	O	ALA	2127	54.062	40.014	-29.856	1.00	19.71	heav
ATOM	3273	N	LYS	2128	52.768	38.195	-29.476	1.00	16.71	heav
ATOM	3275	CA	LYS	2128	51.820	39.203	-29.036	1.00	16.71	heav
ATOM	3276	CB	LYS	2128	50.642	39.140	-30.053	1.00	33.80	heav
ATOM	3277	CG	LYS	2128	51.018	39.901	-31.456	1.00	33.80	heav
ATOM	3278	CD	LYS	2128	51.517	41.423	-31.432	1.00	33.80	heav
ATOM	3279	CE	LYS	2128	52.859	41.792	-32.186	1.00	33.80	heav
ATOM	3280	NZ	LYS	2128	53.647	42.857	-31.544	1.00	33.80	heav
ATOM	3284	C	LYS	2128	51.446	39.131	-27.586	1.00	16.71	heav
ATOM	3285	O	LYS	2128	51.873	38.194	-26.926	1.00	33.80	heav
ATOM	3286	N	THR	2129	50.829	40.181	-27.033	1.00	6.47	heav
ATOM	3288	CA	THR	2129	50.491	40.217	-25.609	1.00	6.47	heav
ATOM	3289	CB	THR	2129	49.606	41.368	-25.298	1.00	13.22	heav
ATOM	3290	OG1	THR	2129	50.353	42.453	-25.806	1.00	13.22	heav
ATOM	3292	CG2	THR	2129	49.383	41.680	-23.860	1.00	13.22	heav
ATOM	3293	C	THR	2129	49.836	39.004	-25.030	1.00	6.47	heav
ATOM	3294	O	THR	2129	48.940	38.385	-25.580	1.00	13.22	heav
ATOM	3295	N	THR	2130	50.393	38.589	-23.920	1.00	7.77	heav
ATOM	3297	CA	THR	2130	49.908	37.407	-23.249	1.00	7.77	heav
ATOM	3298	CB	THR	2130	50.777	36.207	-23.660	1.00	22.05	heav

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ATOM	3299	OG1	THR	2130	50.627	36.030	-25.081	1.00	22.05	heav
ATOM	3301	CG2	THR	2130	50.325	34.907	-23.035	1.00	22.05	heav
ATOM	3302	C	THR	2130	49.880	37.598	-21.757	1.00	7.77	heav
ATOM	3303	O	THR	2130	50.728	38.239	-21.131	1.00	22.05	heav
ATOM	3304	N	PRO	2131	48.768	37.246	-21.168	1.00	8.77	heav
ATOM	3305	CD	PRO	2131	47.584	36.758	-21.831	1.00	13.26	heav
ATOM	3306	CA	PRO	2131	48.467	37.536	-19.807	1.00	8.77	heav
ATOM	3307	CB	PRO	2131	47.033	37.328	-19.754	1.00	13.26	heav
ATOM	3308	CG	PRO	2131	46.552	37.557	-21.120	1.00	13.26	heav
ATOM	3309	C	PRO	2131	49.245	36.611	-18.883	1.00	8.77	heav
ATOM	3310	O	PRO	2131	49.454	35.468	-19.272	1.00	13.26	heav
ATOM	3311	N	PRO	2132	49.662	37.002	-17.663	1.00	8.88	heav
ATOM	3312	CD	PRO	2132	49.345	38.284	-17.043	1.00	9.87	heav
ATOM	3313	CA	PRO	2132	50.353	36.161	-16.718	1.00	8.88	heav
ATOM	3314	CB	PRO	2132	50.812	37.115	-15.687	1.00	9.87	heav
ATOM	3315	CG	PRO	2132	49.674	38.101	-15.595	1.00	9.87	heav
ATOM	3316	C	PRO	2132	49.512	35.054	-16.121	1.00	8.88	heav
ATOM	3317	O	PRO	2132	48.282	35.126	-16.102	1.00	9.87	heav
ATOM	3318	N	SER	2133	50.106	34.040	-15.544	1.00	2.00	heav
ATOM	3320	CA	SER	2133	49.359	33.101	-14.769	1.00	2.00	heav
ATOM	3321	CB	SER	2133	49.479	31.797	-15.345	1.00	13.04	heav
ATOM	3322	OG	SER	2133	48.225	31.818	-15.918	1.00	13.04	heav
ATOM	3324	C	SER	2133	49.915	33.066	-13.394	1.00	2.00	heav
ATOM	3325	O	SER	2133	51.047	32.654	-13.220	1.00	13.04	heav
ATOM	3326	N	VAL	2134	49.257	33.537	-12.376	1.00	10.69	heav
ATOM	3328	CA	VAL	2134	49.837	33.500	-11.038	1.00	10.69	heav
ATOM	3329	CB	VAL	2134	49.587	34.904	-10.385	1.00	11.42	heav
ATOM	3330	CG1	VAL	2134	48.255	35.420	-10.765	1.00	11.42	heav
ATOM	3331	CG2	VAL	2134	49.650	34.840	-8.882	1.00	11.42	heav
ATOM	3332	C	VAL	2134	49.381	32.335	-10.172	1.00	10.69	heav
ATOM	3333	O	VAL	2134	48.208	31.996	-10.069	1.00	11.42	heav
ATOM	3334	N	TYR	2135	50.370	31.633	-9.629	1.00	8.23	heav
ATOM	3336	CA	TYR	2135	50.152	30.433	-8.843	1.00	8.23	heav
ATOM	3337	CB	TYR	2135	50.959	29.262	-9.420	1.00	6.77	heav
ATOM	3338	CG	TYR	2135	50.517	28.912	-10.847	1.00	6.77	heav
ATOM	3339	CD1	TYR	2135	49.230	28.444	-11.100	1.00	6.77	heav
ATOM	3340	CE1	TYR	2135	48.803	28.187	-12.401	1.00	6.77	heav
ATOM	3341	CD2	TYR	2135	51.366	29.116	-11.933	1.00	6.77	heav
ATOM	3342	CE2	TYR	2135	50.933	28.858	-13.238	1.00	6.77	heav
ATOM	3343	CZ	TYR	2135	49.651	28.383	-13.467	1.00	6.77	heav
ATOM	3344	OH	TYR	2135	49.257	27.999	-14.733	1.00	6.77	heav
ATOM	3346	C	TYR	2135	50.596	30.736	-7.438	1.00	8.23	heav
ATOM	3347	O	TYR	2135	51.581	31.438	-7.284	1.00	6.77	heav
ATOM	3348	N	PRO	2136	49.932	30.367	-6.356	1.00	7.82	heav
ATOM	3349	CD	PRO	2136	48.583	29.818	-6.342	1.00	14.32	heav
ATOM	3350	CA	PRO	2136	50.383	30.621	-5.018	1.00	7.82	heav
ATOM	3351	CB	PRO	2136	49.128	30.657	-4.266	1.00	14.32	heav
ATOM	3352	CG	PRO	2136	48.297	29.564	-4.872	1.00	14.32	heav
ATOM	3353	C	PRO	2136	51.330	29.537	-4.575	1.00	7.82	heav
ATOM	3354	O	PRO	2136	51.053	28.330	-4.671	1.00	14.32	heav
ATOM	3355	N	LEU	2137	52.477	29.913	-4.076	1.00	9.01	heav
ATOM	3357	CA	LEU	2137	53.428	28.953	-3.589	1.00	9.01	heav
ATOM	3358	CB	LEU	2137	54.823	29.386	-3.916	1.00	17.89	heav
ATOM	3359	CG	LEU	2137	55.207	29.676	-5.334	1.00	17.89	heav
ATOM	3360	CD1	LEU	2137	56.690	29.871	-5.454	1.00	17.89	heav
ATOM	3361	CD2	LEU	2137	54.808	28.499	-6.170	1.00	17.89	heav
ATOM	3362	C	LEU	2137	53.275	28.934	-2.105	1.00	9.01	heav
ATOM	3363	O	LEU	2137	53.743	29.838	-1.446	1.00	17.89	heav
ATOM	3364	N	ALA	2138	52.562	27.994	-1.550	1.00	34.99	heav
ATOM	3366	CA	ALA	2138	52.391	27.881	-0.089	1.00	34.99	heav
ATOM	3367	CB	ALA	2138	50.917	27.783	0.304	1.00	33.08	heav
ATOM	3368	C	ALA	2138	53.084	26.622	0.474	1.00	34.99	heav
ATOM	3369	O	ALA	2138	53.129	25.535	-0.123	1.00	33.08	heav
ATOM	3370	N	PRO	2139	53.696	26.672	1.629	1.00	19.82	heav
ATOM	3371	CD	PRO	2139	53.643	27.797	2.514	1.00	28.19	heav
ATOM	3372	CA	PRO	2139	54.492	25.586	2.083	1.00	19.82	heav
ATOM	3373	CB	PRO	2139	55.345	26.143	3.142	1.00	28.19	heav

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ATOM	3374	CG	PRO	2139	54.852	27.566	3.376	1.00	28.19	heav
ATOM	3375	C	PRO	2139	53.621	24.479	2.600	1.00	19.82	heav
ATOM	3376	O	PRO	2139	52.531	24.651	3.187	1.00	28.19	heav
ATOM	3377	N	GLY	2140	54.337	23.348	2.434	1.00	66.78	heav
ATOM	3379	CA	GLY	2140	53.986	22.027	2.945	1.00	66.78	heav
ATOM	3380	C	GLY	2140	54.557	21.872	4.379	1.00	66.78	heav
ATOM	3381	O	GLY	2140	55.550	21.164	4.699	1.00	45.95	heav
ATOM	3382	N	SER	2141	53.752	22.552	5.258	1.00	81.12	heav
ATOM	3384	CA	SER	2141	53.975	22.623	6.715	1.00	81.12	heav
ATOM	3385	CB	SER	2141	53.710	21.172	7.448	1.00	95.01	heav
ATOM	3386	OG	SER	2141	52.635	21.325	8.478	1.00	95.01	heav
ATOM	3388	C	SER	2141	55.368	23.171	7.042	1.00	81.12	heav
ATOM	3389	O	SER	2141	56.474	22.587	7.009	1.00	95.01	heav
ATOM	3390	N	ALA	2142	55.089	24.513	7.194	1.00	72.58	heav
ATOM	3392	CA	ALA	2142	56.124	25.530	7.542	1.00	72.58	heav
ATOM	3393	CB	ALA	2142	55.820	27.010	7.450	1.00	46.53	heav
ATOM	3394	C	ALA	2142	56.517	25.476	8.967	1.00	72.58	heav
ATOM	3395	O	ALA	2142	57.776	25.610	9.120	1.00	46.53	heav
ATOM	3396	N	ALA	2143	55.371	25.578	9.877	1.00	58.51	heav
ATOM	3398	CA	ALA	2143	55.306	25.231	11.348	1.00	58.51	heav
ATOM	3399	CB	ALA	2143	54.069	24.263	11.731	1.00	53.51	heav
ATOM	3400	C	ALA	2143	56.504	24.601	12.074	1.00	58.51	heav
ATOM	3401	O	ALA	2143	56.734	24.810	13.281	1.00	53.51	heav
ATOM	3402	N	GLN	2144	57.293	23.779	11.345	1.00	65.00	heav
ATOM	3404	CA	GLN	2144	58.610	23.183	11.602	1.00	65.00	heav
ATOM	3405	CB	GLN	2144	58.447	22.048	12.716	1.00	45.42	heav
ATOM	3406	CG	GLN	2144	58.441	22.832	14.120	1.00	45.42	heav
ATOM	3407	CD	GLN	2144	59.343	24.104	14.338	1.00	45.42	heav
ATOM	3408	OE1	GLN	2144	60.422	24.087	14.947	1.00	45.42	heav
ATOM	3409	NE2	GLN	2144	59.146	25.303	13.794	1.00	45.42	heav
ATOM	3412	C	GLN	2144	59.620	22.717	10.465	1.00	65.00	heav
ATOM	3413	O	GLN	2144	59.934	21.572	10.046	1.00	45.42	heav
ATOM	3414	N	THR	2145	60.133	23.903	10.011	1.00	52.38	heav
ATOM	3416	CA	THR	2145	61.319	24.132	9.129	1.00	52.38	heav
ATOM	3417	CB	THR	2145	61.033	23.955	7.552	1.00	51.61	heav
ATOM	3418	OG1	THR	2145	62.291	23.434	7.003	1.00	51.61	heav
ATOM	3420	CG2	THR	2145	60.442	25.190	6.793	1.00	51.61	heav
ATOM	3421	C	THR	2145	61.662	25.613	9.421	1.00	52.38	heav
ATOM	3422	O	THR	2145	62.017	26.463	8.617	1.00	51.61	heav
ATOM	3423	N	ASN	2146	61.466	25.807	10.763	1.00	76.55	heav
ATOM	3425	CA	ASN	2146	61.506	26.961	11.681	1.00	76.55	heav
ATOM	3426	CB	ASN	2146	62.794	27.727	11.190	1.00	49.14	heav
ATOM	3427	CG	ASN	2146	63.955	26.700	11.262	1.00	49.14	heav
ATOM	3428	OD1	ASN	2146	64.177	25.773	10.467	1.00	49.14	heav
ATOM	3429	ND2	ASN	2146	64.831	26.683	12.184	1.00	49.14	heav
ATOM	3432	C	ASN	2146	60.147	27.717	11.908	1.00	76.55	heav
ATOM	3433	O	ASN	2146	59.053	27.193	11.630	1.00	49.14	heav
ATOM	3434	N	SER	2147	60.215	28.869	12.609	1.00	33.57	heav
ATOM	3436	CA	SER	2147	58.983	29.669	12.933	1.00	33.57	heav
ATOM	3437	CB	SER	2147	58.782	29.817	14.495	1.00	38.50	heav
ATOM	3438	OG	SER	2147	59.826	30.667	15.051	1.00	38.50	heav
ATOM	3440	C	SER	2147	58.939	31.115	12.358	1.00	33.57	heav
ATOM	3441	O	SER	2147	58.415	32.100	12.924	1.00	38.50	heav
ATOM	3442	N	MET	2148	59.371	31.181	11.085	1.00	30.12	heav
ATOM	3444	CA	MET	2148	59.415	32.358	10.202	1.00	30.12	heav
ATOM	3445	CB	MET	2148	60.801	32.875	10.058	1.00	40.58	heav
ATOM	3446	CG	MET	2148	60.978	33.943	11.078	1.00	40.58	heav
ATOM	3447	SD	MET	2148	59.997	35.308	10.357	1.00	40.58	heav
ATOM	3448	CE	MET	2148	61.238	36.537	9.960	1.00	40.58	heav
ATOM	3449	C	MET	2148	59.012	31.703	8.932	1.00	30.12	heav
ATOM	3450	O	MET	2148	59.625	30.716	8.544	1.00	40.58	heav
ATOM	3451	N	VAL	2149	57.903	32.062	8.346	1.00	16.62	heav
ATOM	3453	CA	VAL	2149	57.483	31.411	7.120	1.00	16.62	heav
ATOM	3454	CB	VAL	2149	56.031	31.084	7.186	1.00	11.84	heav
ATOM	3455	CG1	VAL	2149	55.727	30.066	6.158	1.00	11.84	heav
ATOM	3456	CG2	VAL	2149	55.642	30.459	8.495	1.00	11.84	heav
ATOM	3457	C	VAL	2149	57.702	32.303	5.919	1.00	16.62	heav

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ATOM	3458	O	VAL	2149	57.436	33.500	6.010	1.00	11.84	heav
ATOM	3459	N	THR	2150	58.281	31.656	4.876	1.00	13.15	heav
ATOM	3461	CA	THR	2150	58.513	32.134	3.502	1.00	13.15	heav
ATOM	3462	CB	THR	2150	59.877	31.729	2.901	1.00	14.24	heav
ATOM	3463	OG1	THR	2150	60.980	31.966	3.767	1.00	14.24	heav
ATOM	3465	CG2	THR	2150	60.153	32.622	1.728	1.00	14.24	heav
ATOM	3466	C	THR	2150	57.448	31.501	2.611	1.00	13.15	heav
ATOM	3467	O	THR	2150	57.051	30.329	2.670	1.00	14.24	heav
ATOM	3468	N	LEU	2151	56.871	32.480	1.928	1.00	26.52	heav
ATOM	3470	CA	LEU	2151	55.718	32.306	1.028	1.00	26.52	heav
ATOM	3471	CB	LEU	2151	54.495	32.973	1.642	1.00	21.19	heav
ATOM	3472	CG	LEU	2151	54.073	32.728	3.091	1.00	21.19	heav
ATOM	3473	CD1	LEU	2151	52.908	33.641	3.419	1.00	21.19	heav
ATOM	3474	CD2	LEU	2151	53.690	31.263	3.279	1.00	21.19	heav
ATOM	3475	C	LEU	2151	55.930	32.916	-0.365	1.00	26.52	heav
ATOM	3476	O	LEU	2151	56.790	33.803	-0.498	1.00	21.19	heav
ATOM	3477	N	GLY	2152	55.225	32.514	-1.423	1.00	14.39	heav
ATOM	3479	CA	GLY	2152	55.484	33.167	-2.694	1.00	14.39	heav
ATOM	3480	C	GLY	2152	54.431	33.086	-3.786	1.00	14.39	heav
ATOM	3481	O	GLY	2152	53.356	32.497	-3.718	1.00	5.95	heav
ATOM	3482	N	CYS	2153	54.820	33.692	-4.888	1.00	9.65	heav
ATOM	3484	CA	CYS	2153	53.944	33.790	-6.029	1.00	9.65	heav
ATOM	3485	C	CYS	2153	54.639	33.418	-7.290	1.00	9.65	heav
ATOM	3486	O	CYS	2153	55.722	33.923	-7.538	1.00	17.39	heav
ATOM	3487	CB	CYS	2153	53.470	35.180	-6.168	1.00	17.39	heav
ATOM	3488	SG	CYS	2153	51.732	35.135	-5.776	1.00	17.39	heav
ATOM	3489	N	LEU	2154	54.128	32.543	-8.105	1.00	6.05	heav
ATOM	3491	CA	LEU	2154	54.792	32.270	-9.332	1.00	6.05	heav
ATOM	3492	CB	LEU	2154	54.725	30.826	-9.627	1.00	2.00	heav
ATOM	3493	CG	LEU	2154	55.975	30.088	-9.993	1.00	2.00	heav
ATOM	3494	CD1	LEU	2154	55.466	28.868	-10.698	1.00	2.00	heav
ATOM	3495	CD2	LEU	2154	56.871	30.768	-10.977	1.00	2.00	heav
ATOM	3496	C	LEU	2154	54.037	33.047	-10.366	1.00	6.05	heav
ATOM	3497	O	LEU	2154	52.820	32.945	-10.407	1.00	2.00	heav
ATOM	3498	N	VAL	2155	54.672	33.895	-11.153	1.00	2.00	heav
ATOM	3500	CA	VAL	2155	53.992	34.564	-12.247	1.00	2.00	heav
ATOM	3501	CB	VAL	2155	54.180	36.061	-12.118	1.00	2.00	heav
ATOM	3502	CG1	VAL	2155	53.402	36.842	-13.137	1.00	2.00	heav
ATOM	3503	CG2	VAL	2155	53.665	36.436	-10.761	1.00	2.00	heav
ATOM	3504	C	VAL	2155	54.524	34.047	-13.558	1.00	2.00	heav
ATOM	3505	O	VAL	2155	55.674	34.144	-13.926	1.00	2.00	heav
ATOM	3506	N	LYS	2156	53.663	33.468	-14.330	1.00	2.00	heav
ATOM	3508	CA	LYS	2156	54.132	32.726	-15.440	1.00	2.00	heav
ATOM	3509	CB	LYS	2156	53.980	31.281	-15.006	1.00	6.27	heav
ATOM	3510	CG	LYS	2156	54.218	30.058	-15.901	1.00	6.27	heav
ATOM	3511	CD	LYS	2156	55.243	29.108	-15.275	1.00	6.27	heav
ATOM	3512	CE	LYS	2156	55.113	27.706	-15.801	1.00	6.27	heav
ATOM	3513	NZ	LYS	2156	55.486	27.643	-17.183	1.00	6.27	heav
ATOM	3517	C	LYS	2156	53.484	32.990	-16.741	1.00	2.00	heav
ATOM	3518	O	LYS	2156	52.301	33.237	-16.785	1.00	6.27	heav
ATOM	3519	N	GLY	2157	54.275	32.913	-17.788	1.00	9.33	heav
ATOM	3521	CA	GLY	2157	53.734	32.876	-19.125	1.00	9.33	heav
ATOM	3522	C	GLY	2157	53.111	34.130	-19.690	1.00	9.33	heav
ATOM	3523	O	GLY	2157	52.033	34.106	-20.272	1.00	18.25	heav
ATOM	3524	N	TYR	2158	53.851	35.221	-19.571	1.00	10.81	heav
ATOM	3526	CA	TYR	2158	53.430	36.484	-20.098	1.00	10.81	heav
ATOM	3527	CB	TYR	2158	53.112	37.432	-18.924	1.00	2.00	heav
ATOM	3528	CG	TYR	2158	54.260	37.835	-18.017	1.00	2.00	heav
ATOM	3529	CD1	TYR	2158	54.907	39.023	-18.207	1.00	2.00	heav
ATOM	3530	CE1	TYR	2158	55.958	39.398	-17.403	1.00	2.00	heav
ATOM	3531	CD2	TYR	2158	54.670	37.023	-17.002	1.00	2.00	heav
ATOM	3532	CE2	TYR	2158	55.710	37.382	-16.192	1.00	2.00	heav
ATOM	3533	CZ	TYR	2158	56.362	38.564	-16.396	1.00	2.00	heav
ATOM	3534	OH	TYR	2158	57.491	38.891	-15.637	1.00	2.00	heav
ATOM	3536	C	TYR	2158	54.462	37.103	-21.022	1.00	10.81	heav
ATOM	3537	O	TYR	2158	55.678	36.864	-20.981	1.00	2.00	heav
ATOM	3538	N	PHE	2159	53.920	37.904	-21.917	1.00	10.49	heav

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ATOM	3540	CA	PHE	2159	54.730	38.793	-22.740	1.00	10.49	heav
ATOM	3541	CB	PHE	2159	54.968	38.127	-24.067	1.00	11.32	heav
ATOM	3542	CG	PHE	2159	56.025	38.832	-24.879	1.00	11.32	heav
ATOM	3543	CD1	PHE	2159	55.656	39.691	-25.880	1.00	11.32	heav
ATOM	3544	CD2	PHE	2159	57.355	38.585	-24.614	1.00	11.32	heav
ATOM	3545	CE1	PHE	2159	56.647	40.280	-26.614	1.00	11.32	heav
ATOM	3546	CE2	PHE	2159	58.331	39.184	-25.360	1.00	11.32	heav
ATOM	3547	CZ	PHE	2159	57.977	40.039	-26.365	1.00	11.32	heav
ATOM	3548	C	PHE	2159	53.923	40.097	-22.908	1.00	10.49	heav
ATOM	3549	O	PHE	2159	52.699	39.957	-22.773	1.00	11.32	heav
ATOM	3550	N	CPR	2160	54.368	41.384	-22.975	1.00	9.43	heav
ATOM	3551	CD	CPR	2160	53.604	42.427	-23.682	1.00	5.46	heav
ATOM	3552	CA	CPR	2160	55.742	41.865	-22.850	1.00	9.43	heav
ATOM	3553	CB	CPR	2160	55.804	43.116	-23.634	1.00	5.46	heav
ATOM	3554	CG	CPR	2160	54.404	43.681	-23.556	1.00	5.46	heav
ATOM	3555	C	CPR	2160	56.087	42.133	-21.406	1.00	9.43	heav
ATOM	3556	O	CPR	2160	55.238	41.843	-20.562	1.00	5.46	heav
ATOM	3557	N	GLU	2161	57.287	42.655	-21.093	1.00	9.25	heav
ATOM	3559	CA	GLU	2161	57.640	43.127	-19.748	1.00	9.25	heav
ATOM	3560	CB	GLU	2161	59.097	43.095	-19.657	1.00	2.00	heav
ATOM	3561	CG	GLU	2161	59.506	41.813	-19.062	1.00	2.00	heav
ATOM	3562	CD	GLU	2161	59.950	41.894	-17.620	1.00	2.00	heav
ATOM	3563	OE1	GLU	2161	59.120	41.754	-16.730	1.00	2.00	heav
ATOM	3564	OE2	GLU	2161	61.149	42.058	-17.405	1.00	2.00	heav
ATOM	3565	C	GLU	2161	57.118	44.554	-19.583	1.00	9.25	heav
ATOM	3566	O	GLU	2161	57.161	45.249	-20.591	1.00	2.00	heav
ATOM	3567	N	CPR	2162	56.737	45.191	-18.486	1.00	5.69	heav
ATOM	3568	CD	CPR	2162	56.449	46.618	-18.452	1.00	12.62	heav
ATOM	3569	CA	CPR	2162	56.750	44.708	-17.133	1.00	5.69	heav
ATOM	3570	CB	CPR	2162	57.168	45.912	-16.364	1.00	12.62	heav
ATOM	3571	CG	CPR	2162	56.268	46.947	-16.978	1.00	12.62	heav
ATOM	3572	C	CPR	2162	55.548	44.081	-16.512	1.00	5.69	heav
ATOM	3573	O	CPR	2162	54.402	44.268	-16.932	1.00	12.62	heav
ATOM	3574	N	VAL	2163	55.842	43.379	-15.450	1.00	13.78	heav
ATOM	3576	CA	VAL	2163	54.780	42.929	-14.579	1.00	13.78	heav
ATOM	3577	CB	VAL	2163	54.777	41.372	-14.435	1.00	11.53	heav
ATOM	3578	CG1	VAL	2163	55.048	40.824	-13.038	1.00	11.53	heav
ATOM	3579	CG2	VAL	2163	53.363	40.933	-14.711	1.00	11.53	heav
ATOM	3580	C	VAL	2163	55.093	43.602	-13.238	1.00	13.78	heav
ATOM	3581	O	VAL	2163	56.271	43.800	-12.871	1.00	11.53	heav
ATOM	3582	N	THR	2164	54.058	44.002	-12.489	1.00	21.59	heav
ATOM	3584	CA	THR	2164	54.367	44.449	-11.144	1.00	21.59	heav
ATOM	3585	CB	THR	2164	54.157	46.068	-11.042	1.00	20.72	heav
ATOM	3586	OG1	THR	2164	53.179	46.304	-10.052	1.00	20.72	heav
ATOM	3588	CG2	THR	2164	53.762	46.789	-12.363	1.00	20.72	heav
ATOM	3589	C	THR	2164	53.627	43.640	-10.060	1.00	21.59	heav
ATOM	3590	O	THR	2164	52.438	43.356	-10.072	1.00	20.72	heav
ATOM	3591	N	VAL	2165	54.462	43.068	-9.186	1.00	20.94	heav
ATOM	3593	CA	VAL	2165	54.077	42.253	-8.055	1.00	20.94	heav
ATOM	3594	CB	VAL	2165	54.912	40.996	-8.025	1.00	12.28	heav
ATOM	3595	CG1	VAL	2165	54.427	40.078	-6.940	1.00	12.28	heav
ATOM	3596	CG2	VAL	2165	54.859	40.338	-9.374	1.00	12.28	heav
ATOM	3597	C	VAL	2165	54.307	43.010	-6.757	1.00	20.94	heav
ATOM	3598	O	VAL	2165	55.422	43.506	-6.567	1.00	12.28	heav
ATOM	3599	N	THR	2166	53.322	43.132	-5.857	1.00	6.18	heav
ATOM	3601	CA	THR	2166	53.478	43.736	-4.539	1.00	6.18	heav
ATOM	3602	CB	THR	2166	52.790	45.143	-4.371	1.00	9.46	heav
ATOM	3603	OG1	THR	2166	51.554	45.007	-3.691	1.00	9.46	heav
ATOM	3605	CG2	THR	2166	52.410	45.774	-5.725	1.00	9.46	heav
ATOM	3606	C	THR	2166	52.828	42.824	-3.542	1.00	6.18	heav
ATOM	3607	O	THR	2166	51.891	42.062	-3.851	1.00	9.46	heav
ATOM	3608	N	TRP	2167	53.225	43.030	-2.281	1.00	28.07	heav
ATOM	3610	CA	TRP	2167	52.578	42.182	-1.266	1.00	28.07	heav
ATOM	3611	CB	TRP	2167	53.593	41.556	-0.384	1.00	13.41	heav
ATOM	3612	CG	TRP	2167	54.255	40.495	-1.244	1.00	13.41	heav
ATOM	3613	CD2	TRP	2167	53.854	39.201	-1.348	1.00	13.41	heav
ATOM	3614	CE2	TRP	2167	54.782	38.722	-2.217	1.00	13.41	heav

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ATOM	3615	CE3	TRP	2167	52.897	38.363	-0.857	1.00	13.41	heav
ATOM	3616	CD1	TRP	2167	55.351	40.812	-2.000	1.00	13.41	heav
ATOM	3617	NE1	TRP	2167	55.626	39.697	-2.570	1.00	13.41	heav
ATOM	3619	CZ2	TRP	2167	54.800	37.410	-2.623	1.00	13.41	heav
ATOM	3620	CZ3	TRP	2167	52.903	37.036	-1.256	1.00	13.41	heav
ATOM	3621	CH2	TRP	2167	53.850	36.549	-2.131	1.00	13.41	heav
ATOM	3622	C	TRP	2167	51.576	42.872	-0.392	1.00	28.07	heav
ATOM	3623	O	TRP	2167	51.802	44.051	-0.126	1.00	13.41	heav
ATOM	3624	N	ASN	2168	50.489	42.226	0.037	1.00	12.75	heav
ATOM	3626	CA	ASN	2168	49.432	42.866	0.797	1.00	12.75	heav
ATOM	3627	CB	ASN	2168	49.852	42.907	2.237	1.00	24.68	heav
ATOM	3628	CG	ASN	2168	49.360	41.666	2.936	1.00	24.68	heav
ATOM	3629	OD1	ASN	2168	48.852	40.720	2.365	1.00	24.68	heav
ATOM	3630	ND2	ASN	2168	49.401	41.482	4.221	1.00	24.68	heav
ATOM	3633	C	ASN	2168	49.055	44.256	0.326	1.00	12.75	heav
ATOM	3634	O	ASN	2168	49.010	45.226	1.064	1.00	24.68	heav
ATOM	3635	N	SER	2169	48.903	44.485	-0.950	1.00	25.41	heav
ATOM	3637	CA	SER	2169	48.624	45.840	-1.537	1.00	25.41	heav
ATOM	3638	CB	SER	2169	47.261	46.383	-1.127	1.00	36.54	heav
ATOM	3639	OG	SER	2169	46.319	45.380	-1.544	1.00	36.54	heav
ATOM	3641	C	SER	2169	49.622	46.953	-1.227	1.00	25.41	heav
ATOM	3642	O	SER	2169	49.424	48.155	-1.398	1.00	36.54	heav
ATOM	3643	N	GLY	2170	50.807	46.512	-0.857	1.00	19.45	heav
ATOM	3645	CA	GLY	2170	51.903	47.374	-0.469	1.00	19.45	heav
ATOM	3646	C	GLY	2170	52.159	47.330	1.033	1.00	19.45	heav
ATOM	3647	O	GLY	2170	53.259	47.645	1.496	1.00	30.51	heav
ATOM	3648	N	SER	2171	51.197	46.883	1.838	1.00	15.00	heav
ATOM	3650	CA	SER	2171	51.355	46.867	3.275	1.00	15.00	heav
ATOM	3651	CB	SER	2171	49.952	46.983	3.883	1.00	35.75	heav
ATOM	3652	OG	SER	2171	49.113	45.842	3.697	1.00	35.75	heav
ATOM	3654	C	SER	2171	52.104	45.636	3.812	1.00	15.00	heav
ATOM	3655	O	SER	2171	51.671	44.896	4.725	1.00	35.75	heav
ATOM	3656	N	LEU	2172	53.276	45.408	3.202	1.00	33.05	heav
ATOM	3658	CA	LEU	2172	54.199	44.274	3.444	1.00	33.05	heav
ATOM	3659	CB	LEU	2172	53.397	42.968	3.400	1.00	27.07	heav
ATOM	3660	CG	LEU	2172	53.956	41.571	3.586	1.00	27.07	heav
ATOM	3661	CD1	LEU	2172	54.752	41.369	4.883	1.00	27.07	heav
ATOM	3662	CD2	LEU	2172	52.738	40.669	3.517	1.00	27.07	heav
ATOM	3663	C	LEU	2172	55.317	44.291	2.367	1.00	33.05	heav
ATOM	3664	O	LEU	2172	55.198	43.809	1.223	1.00	27.07	heav
ATOM	3665	N	SER	2173	56.352	45.043	2.743	1.00	19.96	heav
ATOM	3667	CA	SER	2173	57.494	45.378	1.878	1.00	19.96	heav
ATOM	3668	CB	SER	2173	57.629	46.865	1.676	1.00	37.11	heav
ATOM	3669	OG	SER	2173	58.125	47.492	2.879	1.00	37.11	heav
ATOM	3671	C	SER	2173	58.822	44.927	2.501	1.00	19.96	heav
ATOM	3672	O	SER	2173	59.883	44.795	1.884	1.00	37.11	heav
ATOM	3673	N	SER	2174	58.893	44.800	3.821	1.00	32.74	heav
ATOM	3675	CA	SER	2174	60.070	44.212	4.497	1.00	32.74	heav
ATOM	3676	CB	SER	2174	59.991	44.358	6.018	1.00	35.13	heav
ATOM	3677	OG	SER	2174	58.690	44.891	6.341	1.00	35.13	heav
ATOM	3679	C	SER	2174	60.055	42.732	4.157	1.00	32.74	heav
ATOM	3680	O	SER	2174	58.962	42.156	4.056	1.00	35.13	heav
ATOM	3681	N	GLY	2175	61.207	42.132	3.779	1.00	20.90	heav
ATOM	3683	CA	GLY	2175	61.292	40.685	3.576	1.00	20.90	heav
ATOM	3684	C	GLY	2175	60.690	40.161	2.283	1.00	20.90	heav
ATOM	3685	O	GLY	2175	60.605	38.944	2.118	1.00	28.14	heav
ATOM	3686	N	VAL	2176	60.313	41.088	1.377	1.00	19.68	heav
ATOM	3688	CA	VAL	2176	59.880	40.899	-0.018	1.00	19.68	heav
ATOM	3689	CB	VAL	2176	59.050	42.146	-0.483	1.00	16.95	heav
ATOM	3690	CG1	VAL	2176	58.588	42.087	-1.931	1.00	16.95	heav
ATOM	3691	CG2	VAL	2176	57.760	42.165	0.299	1.00	16.95	heav
ATOM	3692	C	VAL	2176	61.049	40.688	-1.007	1.00	19.68	heav
ATOM	3693	O	VAL	2176	62.034	41.453	-1.013	1.00	16.95	heav
ATOM	3694	N	HIS	2177	61.044	39.643	-1.861	1.00	18.49	heav
ATOM	3696	CA	HIS	2177	62.078	39.464	-2.871	1.00	18.49	heav
ATOM	3697	CB	HIS	2177	62.969	38.326	-2.569	1.00	20.37	heav
ATOM	3698	CG	HIS	2177	63.918	38.608	-1.439	1.00	20.37	heav

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ATOM	3699	CD2	HIS	2177	64.147	37.720	-0.437	1.00	20.37	heav
ATOM	3700	ND1	HIS	2177	64.668	39.687	-1.244	1.00	20.37	heav
ATOM	3702	CE1	HIS	2177	65.352	39.478	-0.155	1.00	20.37	heav
ATOM	3703	NE2	HIS	2177	65.029	38.296	0.313	1.00	20.37	heav
ATOM	3705	C	HIS	2177	61.465	39.181	-4.217	1.00	18.49	heav
ATOM	3706	O	HIS	2177	60.669	38.253	-4.364	1.00	20.37	heav
ATOM	3707	N	THR	2178	61.803	39.987	-5.203	1.00	4.94	heav
ATOM	3709	CA	THR	2178	61.199	39.773	-6.484	1.00	4.94	heav
ATOM	3710	CB	THR	2178	60.381	40.959	-6.906	1.00	13.23	heav
ATOM	3711	OG1	THR	2178	59.465	41.199	-5.839	1.00	13.23	heav
ATOM	3713	CG2	THR	2178	59.608	40.709	-8.186	1.00	13.23	heav
ATOM	3714	C	THR	2178	62.300	39.548	-7.467	1.00	4.94	heav
ATOM	3715	O	THR	2178	63.233	40.337	-7.594	1.00	13.23	heav
ATOM	3716	N	PHE	2179	62.246	38.399	-8.104	1.00	10.43	heav
ATOM	3718	CA	PHE	2179	63.307	37.997	-8.978	1.00	10.43	heav
ATOM	3719	CB	PHE	2179	63.320	36.460	-8.940	1.00	2.00	heav
ATOM	3720	CG	PHE	2179	63.718	36.003	-7.535	1.00	2.00	heav
ATOM	3721	CD1	PHE	2179	65.051	35.975	-7.191	1.00	2.00	heav
ATOM	3722	CD2	PHE	2179	62.742	35.668	-6.591	1.00	2.00	heav
ATOM	3723	CE1	PHE	2179	65.404	35.664	-5.916	1.00	2.00	heav
ATOM	3724	CE2	PHE	2179	63.104	35.351	-5.309	1.00	2.00	heav
ATOM	3725	CZ	PHE	2179	64.442	35.342	-4.977	1.00	2.00	heav
ATOM	3726	C	PHE	2179	63.131	38.590	-10.354	1.00	10.43	heav
ATOM	3727	O	PHE	2179	62.019	38.834	-10.840	1.00	2.00	heav
ATOM	3728	N	PRO	2180	64.227	38.956	-11.000	1.00	2.00	heav
ATOM	3729	CD	PRO	2180	65.508	39.231	-10.374	1.00	9.22	heav
ATOM	3730	CA	PRO	2180	64.240	39.377	-12.391	1.00	2.00	heav
ATOM	3731	CB	PRO	2180	65.691	39.538	-12.659	1.00	9.22	heav
ATOM	3732	CG	PRO	2180	66.146	40.168	-11.378	1.00	9.22	heav
ATOM	3733	C	PRO	2180	63.542	38.375	-13.274	1.00	2.00	heav
ATOM	3734	O	PRO	2180	63.765	37.180	-13.105	1.00	9.22	heav
ATOM	3735	N	ALA	2181	62.639	38.732	-14.172	1.00	9.13	heav
ATOM	3737	CA	ALA	2181	62.014	37.699	-14.964	1.00	9.13	heav
ATOM	3738	CB	ALA	2181	60.876	38.298	-15.774	1.00	11.87	heav
ATOM	3739	C	ALA	2181	62.982	36.989	-15.886	1.00	9.13	heav
ATOM	3740	O	ALA	2181	64.060	37.496	-16.194	1.00	11.87	heav
ATOM	3741	N	VAL	2182	62.682	35.757	-16.271	1.00	4.75	heav
ATOM	3743	CA	VAL	2182	63.511	35.094	-17.254	1.00	4.75	heav
ATOM	3744	CB	VAL	2182	64.314	33.952	-16.571	1.00	7.77	heav
ATOM	3745	CG1	VAL	2182	65.557	34.640	-16.079	1.00	7.77	heav
ATOM	3746	CG2	VAL	2182	63.741	33.358	-15.305	1.00	7.77	heav
ATOM	3747	C	VAL	2182	62.700	34.598	-18.435	1.00	4.75	heav
ATOM	3748	O	VAL	2182	61.751	33.830	-18.394	1.00	7.77	heav
ATOM	3749	N	LEU	2183	63.051	35.195	-19.551	1.00	11.06	heav
ATOM	3751	CA	LEU	2183	62.371	34.958	-20.817	1.00	11.06	heav
ATOM	3752	CB	LEU	2183	62.882	35.850	-21.930	1.00	34.44	heav
ATOM	3753	CG	LEU	2183	62.037	35.982	-23.211	1.00	34.44	heav
ATOM	3754	CD1	LEU	2183	62.651	37.152	-23.941	1.00	34.44	heav
ATOM	3755	CD2	LEU	2183	62.037	34.767	-24.144	1.00	34.44	heav
ATOM	3756	C	LEU	2183	62.553	33.574	-21.325	1.00	11.06	heav
ATOM	3757	O	LEU	2183	63.650	33.258	-21.752	1.00	34.44	heav
ATOM	3758	N	GLN	2184	61.540	32.772	-21.420	1.00	28.73	heav
ATOM	3760	CA	GLN	2184	61.799	31.458	-21.980	1.00	28.73	heav
ATOM	3761	CB	GLN	2184	61.967	30.460	-20.794	1.00	60.05	heav
ATOM	3762	CG	GLN	2184	61.940	28.956	-21.126	1.00	60.05	heav
ATOM	3763	CD	GLN	2184	62.939	28.526	-22.223	1.00	60.05	heav
ATOM	3764	OE1	GLN	2184	62.714	28.737	-23.428	1.00	60.05	heav
ATOM	3765	NE2	GLN	2184	64.099	27.917	-21.971	1.00	60.05	heav
ATOM	3768	C	GLN	2184	60.764	30.968	-23.001	1.00	28.73	heav
ATOM	3769	O	GLN	2184	59.580	30.764	-22.706	1.00	60.05	heav
ATOM	3770	N	SER	2185	61.235	30.750	-24.238	1.00	32.81	heav
ATOM	3772	CA	SER	2185	60.406	30.350	-25.394	1.00	32.81	heav
ATOM	3773	CB	SER	2185	59.877	28.880	-25.284	1.00	48.35	heav
ATOM	3774	OG	SER	2185	58.651	28.529	-24.609	1.00	48.35	heav
ATOM	3776	C	SER	2185	59.207	31.274	-25.589	1.00	32.81	heav
ATOM	3777	O	SER	2185	57.991	31.012	-25.534	1.00	48.35	heav
ATOM	3778	N	ASP	2186	59.745	32.502	-25.662	1.00	17.87	heav

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ATOM	3780	CA	ASP	2186	58.945	33.694	-25.846	1.00	17.87	heav
ATOM	3781	CB	ASP	2186	58.058	33.583	-27.005	1.00	37.73	heav
ATOM	3782	CG	ASP	2186	58.504	34.707	-27.892	1.00	37.73	heav
ATOM	3783	OD1	ASP	2186	59.342	34.414	-28.777	1.00	37.73	heav
ATOM	3784	OD2	ASP	2186	58.020	35.840	-27.661	1.00	37.73	heav
ATOM	3785	C	ASP	2186	58.062	34.193	-24.764	1.00	17.87	heav
ATOM	3786	O	ASP	2186	57.526	35.262	-24.947	1.00	37.73	heav
ATOM	3787	N	LEU	2187	57.869	33.467	-23.677	1.00	12.36	heav
ATOM	3789	CA	LEU	2187	57.104	33.977	-22.557	1.00	12.36	heav
ATOM	3790	CB	LEU	2187	55.971	33.103	-22.198	1.00	17.92	heav
ATOM	3791	CG	LEU	2187	54.766	33.134	-23.075	1.00	17.92	heav
ATOM	3792	CD1	LEU	2187	54.335	34.537	-23.465	1.00	17.92	heav
ATOM	3793	CD2	LEU	2187	55.146	32.410	-24.307	1.00	17.92	heav
ATOM	3794	C	LEU	2187	57.929	34.094	-21.309	1.00	12.36	heav
ATOM	3795	O	LEU	2187	58.713	33.191	-21.027	1.00	17.92	heav
ATOM	3796	N	TYR	2188	57.850	35.203	-20.562	1.00	13.67	heav
ATOM	3798	CA	TYR	2188	58.560	35.333	-19.266	1.00	13.67	heav
ATOM	3799	CB	TYR	2188	58.730	36.779	-18.817	1.00	13.16	heav
ATOM	3800	CG	TYR	2188	59.347	37.752	-19.778	1.00	13.16	heav
ATOM	3801	CD1	TYR	2188	60.679	38.037	-19.729	1.00	13.16	heav
ATOM	3802	CE1	TYR	2188	61.235	38.852	-20.669	1.00	13.16	heav
ATOM	3803	CD2	TYR	2188	58.532	38.275	-20.729	1.00	13.16	heav
ATOM	3804	CE2	TYR	2188	59.070	39.102	-21.674	1.00	13.16	heav
ATOM	3805	CZ	TYR	2188	60.408	39.380	-21.641	1.00	13.16	heav
ATOM	3806	OH	TYR	2188	60.896	40.202	-22.639	1.00	13.16	heav
ATOM	3808	C	TYR	2188	57.923	34.657	-18.034	1.00	13.67	heav
ATOM	3809	O	TYR	2188	56.709	34.445	-17.878	1.00	13.16	heav
ATOM	3810	N	THR	2189	58.793	34.409	-17.078	1.00	2.00	heav
ATOM	3812	CA	THR	2189	58.371	33.877	-15.807	1.00	2.00	heav
ATOM	3813	CB	THR	2189	58.731	32.469	-15.677	1.00	6.62	heav
ATOM	3814	OG1	THR	2189	58.105	31.874	-16.783	1.00	6.62	heav
ATOM	3816	CG2	THR	2189	58.257	31.815	-14.426	1.00	6.62	heav
ATOM	3817	C	THR	2189	59.096	34.626	-14.759	1.00	2.00	heav
ATOM	3818	O	THR	2189	60.284	34.876	-14.878	1.00	6.62	heav
ATOM	3819	N	LEU	2190	58.394	34.961	-13.717	1.00	7.85	heav
ATOM	3821	CA	LEU	2190	58.941	35.710	-12.609	1.00	7.85	heav
ATOM	3822	CB	LEU	2190	58.470	37.135	-12.780	1.00	4.67	heav
ATOM	3823	CG	LEU	2190	58.562	38.160	-11.734	1.00	4.67	heav
ATOM	3824	CD1	LEU	2190	58.900	39.398	-12.458	1.00	4.67	heav
ATOM	3825	CD2	LEU	2190	57.297	38.304	-10.933	1.00	4.67	heav
ATOM	3826	C	LEU	2190	58.492	35.145	-11.298	1.00	7.85	heav
ATOM	3827	O	LEU	2190	57.455	34.513	-11.245	1.00	4.67	heav
ATOM	3828	N	SER	2191	59.190	35.319	-10.201	1.00	9.27	heav
ATOM	3830	CA	SER	2191	58.626	34.913	-8.909	1.00	9.27	heav
ATOM	3831	CB	SER	2191	59.080	33.516	-8.497	1.00	25.53	heav
ATOM	3832	OG	SER	2191	60.465	33.348	-8.837	1.00	25.53	heav
ATOM	3834	C	SER	2191	58.983	35.867	-7.810	1.00	9.27	heav
ATOM	3835	O	SER	2191	59.873	36.679	-7.928	1.00	25.53	heav
ATOM	3836	N	SER	2192	58.283	35.852	-6.706	1.00	12.64	heav
ATOM	3838	CA	SER	2192	58.438	36.826	-5.624	1.00	12.64	heav
ATOM	3839	CB	SER	2192	57.424	37.955	-5.761	1.00	10.40	heav
ATOM	3840	OG	SER	2192	57.561	39.175	-5.057	1.00	10.40	heav
ATOM	3842	C	SER	2192	58.136	36.064	-4.378	1.00	12.64	heav
ATOM	3843	O	SER	2192	57.156	35.312	-4.315	1.00	10.40	heav
ATOM	3844	N	SER	2193	59.100	36.124	-3.472	1.00	17.32	heav
ATOM	3846	CA	SER	2193	58.987	35.446	-2.166	1.00	17.32	heav
ATOM	3847	CB	SER	2193	60.194	34.661	-1.777	1.00	17.59	heav
ATOM	3848	OG	SER	2193	61.316	35.478	-1.456	1.00	17.59	heav
ATOM	3850	C	SER	2193	58.843	36.415	-1.039	1.00	17.32	heav
ATOM	3851	O	SER	2193	59.452	37.472	-1.218	1.00	17.59	heav
ATOM	3852	N	VAL	2194	58.099	36.152	0.038	1.00	10.93	heav
ATOM	3854	CA	VAL	2194	58.050	37.021	1.235	1.00	10.93	heav
ATOM	3855	CB	VAL	2194	56.646	37.701	1.432	1.00	9.52	heav
ATOM	3856	CG1	VAL	2194	55.590	36.779	1.958	1.00	9.52	heav
ATOM	3857	CG2	VAL	2194	56.816	38.823	2.416	1.00	9.52	heav
ATOM	3858	C	VAL	2194	58.368	36.234	2.502	1.00	10.93	heav
ATOM	3859	O	VAL	2194	57.882	35.103	2.660	1.00	9.52	heav

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ATOM	3860	N	THR	2195	59.178	36.678	3.438	1.00	10.95	heav
ATOM	3862	CA	THR	2195	59.233	35.858	4.641	1.00	10.95	heav
ATOM	3863	CB	THR	2195	60.726	35.327	4.925	1.00	32.72	heav
ATOM	3864	OG1	THR	2195	60.500	34.105	5.604	1.00	32.72	heav
ATOM	3866	CG2	THR	2195	61.639	36.073	5.882	1.00	32.72	heav
ATOM	3867	C	THR	2195	58.638	36.609	5.801	1.00	10.95	heav
ATOM	3868	O	THR	2195	58.933	37.702	6.210	1.00	32.72	heav
ATOM	3869	N	VAL	2196	57.559	36.024	6.157	1.00	8.78	heav
ATOM	3871	CA	VAL	2196	56.692	36.441	7.209	1.00	8.78	heav
ATOM	3872	CB	VAL	2196	55.436	36.146	6.502	1.00	2.00	heav
ATOM	3873	CG1	VAL	2196	54.528	35.177	7.164	1.00	2.00	heav
ATOM	3874	CG2	VAL	2196	54.862	37.468	6.323	1.00	2.00	heav
ATOM	3875	C	VAL	2196	56.990	35.732	8.541	1.00	8.78	heav
ATOM	3876	O	VAL	2196	57.432	34.584	8.586	1.00	2.00	heav
ATOM	3877	N	PRO	2197	56.824	36.386	9.684	1.00	2.00	heav
ATOM	3878	CD	PRO	2197	57.067	37.823	9.833	1.00	18.70	heav
ATOM	3879	CA	PRO	2197	56.692	35.773	11.010	1.00	2.00	heav
ATOM	3880	CB	PRO	2197	56.295	36.928	11.880	1.00	18.70	heav
ATOM	3881	CG	PRO	2197	57.101	38.121	11.357	1.00	18.70	heav
ATOM	3882	C	PRO	2197	55.729	34.629	11.116	1.00	2.00	heav
ATOM	3883	O	PRO	2197	54.677	34.784	10.548	1.00	18.70	heav
ATOM	3884	N	SER	2198	55.911	33.487	11.779	1.00	15.26	heav
ATOM	3886	CA	SER	2198	54.842	32.454	11.847	1.00	15.26	heav
ATOM	3887	CB	SER	2198	55.218	31.283	12.655	1.00	44.17	heav
ATOM	3888	OG	SER	2198	56.217	30.589	11.910	1.00	44.17	heav
ATOM	3890	C	SER	2198	53.443	32.754	12.365	1.00	15.26	heav
ATOM	3891	O	SER	2198	52.443	32.204	11.879	1.00	44.17	heav
ATOM	3892	N	SER	2199	53.277	33.637	13.354	1.00	34.48	heav
ATOM	3894	CA	SER	2199	51.906	34.052	13.732	1.00	34.48	heav
ATOM	3895	CB	SER	2199	51.893	34.918	14.996	1.00	27.79	heav
ATOM	3896	OG	SER	2199	52.891	35.937	14.931	1.00	27.79	heav
ATOM	3898	C	SER	2199	51.116	34.838	12.671	1.00	34.48	heav
ATOM	3899	O	SER	2199	49.893	34.666	12.614	1.00	27.79	heav
ATOM	3900	N	PRO	2200	51.618	35.666	11.739	1.00	28.19	heav
ATOM	3901	CD	PRO	2200	52.653	36.693	11.943	1.00	47.16	heav
ATOM	3902	CA	PRO	2200	50.840	36.062	10.556	1.00	28.19	heav
ATOM	3903	CB	PRO	2200	51.799	36.915	9.715	1.00	47.16	heav
ATOM	3904	CG	PRO	2200	52.524	37.721	10.793	1.00	47.16	heav
ATOM	3905	C	PRO	2200	50.248	34.916	9.743	1.00	28.19	heav
ATOM	3906	O	PRO	2200	49.282	35.222	9.021	1.00	47.16	heav
ATOM	3907	N	ARG	2201	50.660	33.619	9.764	1.00	27.46	heav
ATOM	3909	CA	ARG	2201	49.978	32.767	8.809	1.00	27.46	heav
ATOM	3910	CB	ARG	2201	50.754	32.786	7.490	1.00	16.95	heav
ATOM	3911	CG	ARG	2201	49.841	33.272	6.381	1.00	16.95	heav
ATOM	3912	CD	ARG	2201	49.958	32.518	5.061	1.00	16.95	heav
ATOM	3913	NE	ARG	2201	49.642	31.110	4.941	1.00	16.95	heav
ATOM	3915	CZ	ARG	2201	50.520	30.153	5.248	1.00	16.95	heav
ATOM	3916	NH1	ARG	2201	51.723	30.401	5.705	1.00	16.95	heav
ATOM	3919	NH2	ARG	2201	50.271	28.866	5.006	1.00	16.95	heav
ATOM	3922	C	ARG	2201	49.612	31.349	9.114	1.00	27.46	heav
ATOM	3923	O	ARG	2201	50.367	30.563	9.676	1.00	16.95	heav
ATOM	3924	N	CPR	2202	48.364	31.015	8.809	1.00	23.96	heav
ATOM	3925	CD	CPR	2202	47.939	29.625	8.655	1.00	42.90	heav
ATOM	3926	CA	CPR	2202	47.310	31.915	8.232	1.00	23.96	heav
ATOM	3927	CB	CPR	2202	46.386	31.046	7.359	1.00	42.90	heav
ATOM	3928	CG	CPR	2202	46.439	29.775	8.197	1.00	42.90	heav
ATOM	3929	C	CPR	2202	46.453	32.669	9.228	1.00	23.96	heav
ATOM	3930	O	CPR	2202	45.246	32.797	8.990	1.00	42.90	heav
ATOM	3931	N	SER	2203	46.969	33.094	10.374	1.00	22.44	heav
ATOM	3933	CA	SER	2203	46.086	33.827	11.287	1.00	22.44	heav
ATOM	3934	CB	SER	2203	46.762	34.325	12.520	1.00	39.71	heav
ATOM	3935	OG	SER	2203	47.393	33.146	13.036	1.00	39.71	heav
ATOM	3937	C	SER	2203	45.718	35.038	10.498	1.00	22.44	heav
ATOM	3938	O	SER	2203	44.555	35.355	10.264	1.00	39.71	heav
ATOM	3939	N	GLU	2204	46.789	35.575	9.939	1.00	25.67	heav
ATOM	3941	CA	GLU	2204	46.606	36.640	9.000	1.00	25.67	heav
ATOM	3942	CB	GLU	2204	47.705	37.725	9.208	1.00	52.43	heav

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ATOM	3943	CG	GLU	2204	47.921	38.353	10.604	1.00	52.43	heav
ATOM	3944	CD	GLU	2204	48.261	39.869	10.623	1.00	52.43	heav
ATOM	3945	OE1	GLU	2204	47.451	40.610	11.225	1.00	52.43	heav
ATOM	3946	OE2	GLU	2204	49.300	40.319	10.065	1.00	52.43	heav
ATOM	3947	C	GLU	2204	46.578	36.129	7.525	1.00	25.67	heav
ATOM	3948	O	GLU	2204	46.341	34.950	7.168	1.00	52.43	heav
ATOM	3949	N	THR	2205	46.682	37.120	6.625	1.00	52.23	heav
ATOM	3951	CA	THR	2205	46.441	36.883	5.216	1.00	52.23	heav
ATOM	3952	CB	THR	2205	44.928	37.272	4.948	1.00	33.16	heav
ATOM	3953	OG1	THR	2205	44.414	35.993	4.548	1.00	33.16	heav
ATOM	3955	CG2	THR	2205	44.586	38.371	3.907	1.00	33.16	heav
ATOM	3956	C	THR	2205	47.455	37.710	4.459	1.00	52.23	heav
ATOM	3957	O	THR	2205	47.684	38.915	4.696	1.00	33.16	heav
ATOM	3958	N	VAL	2206	48.164	36.914	3.653	1.00	18.19	heav
ATOM	3960	CA	VAL	2206	49.229	37.407	2.800	1.00	18.19	heav
ATOM	3961	CB	VAL	2206	50.436	36.459	2.972	1.00	16.06	heav
ATOM	3962	CG1	VAL	2206	51.553	36.808	2.000	1.00	16.06	heav
ATOM	3963	CG2	VAL	2206	50.957	36.571	4.423	1.00	16.06	heav
ATOM	3964	C	VAL	2206	48.619	37.348	1.436	1.00	18.19	heav
ATOM	3965	O	VAL	2206	48.051	36.314	1.071	1.00	16.06	heav
ATOM	3966	N	THR	2207	48.589	38.447	0.706	1.00	14.59	heav
ATOM	3968	CA	THR	2207	48.076	38.403	-0.667	1.00	14.59	heav
ATOM	3969	CB	THR	2207	46.734	39.170	-0.811	1.00	23.23	heav
ATOM	3970	OG1	THR	2207	45.762	38.304	-0.205	1.00	23.23	heav
ATOM	3972	CG2	THR	2207	46.202	39.362	-2.234	1.00	23.23	heav
ATOM	3973	C	THR	2207	49.070	38.966	-1.634	1.00	14.59	heav
ATOM	3974	O	THR	2207	49.777	39.955	-1.443	1.00	23.23	heav
ATOM	3975	N	CYS	2208	49.173	38.132	-2.632	1.00	18.37	heav
ATOM	3977	CA	CYS	2208	50.054	38.346	-3.773	1.00	18.37	heav
ATOM	3978	C	CYS	2208	49.506	39.339	-4.780	1.00	18.37	heav
ATOM	3979	O	CYS	2208	48.477	38.976	-5.355	1.00	16.22	heav
ATOM	3980	CB	CYS	2208	50.222	37.045	-4.455	1.00	16.22	heav
ATOM	3981	SG	CYS	2208	51.321	37.075	-5.871	1.00	16.22	heav
ATOM	3982	N	ASN	2209	49.988	40.535	-5.130	1.00	5.56	heav
ATOM	3984	CA	ASN	2209	49.222	41.340	-6.085	1.00	5.56	heav
ATOM	3985	CB	ASN	2209	48.840	42.719	-5.539	1.00	22.20	heav
ATOM	3986	CG	ASN	2209	48.543	42.880	-4.026	1.00	22.20	heav
ATOM	3987	OD1	ASN	2209	49.365	43.400	-3.285	1.00	22.20	heav
ATOM	3988	ND2	ASN	2209	47.468	42.539	-3.333	1.00	22.20	heav
ATOM	3991	C	ASN	2209	49.965	41.569	-7.373	1.00	5.56	heav
ATOM	3992	O	ASN	2209	50.911	42.317	-7.489	1.00	22.20	heav
ATOM	3993	N	VAL	2210	49.532	40.900	-8.407	1.00	20.32	heav
ATOM	3995	CA	VAL	2210	50.207	40.930	-9.698	1.00	20.32	heav
ATOM	3996	CB	VAL	2210	50.177	39.544	-10.348	1.00	7.94	heav
ATOM	3997	CG1	VAL	2210	51.025	39.525	-11.602	1.00	7.94	heav
ATOM	3998	CG2	VAL	2210	50.590	38.536	-9.329	1.00	7.94	heav
ATOM	3999	C	VAL	2210	49.535	41.900	-10.629	1.00	20.32	heav
ATOM	4000	O	VAL	2210	48.335	41.832	-10.775	1.00	7.94	heav
ATOM	4001	N	ALA	2211	50.247	42.701	-11.365	1.00	2.00	heav
ATOM	4003	CA	ALA	2211	49.657	43.641	-12.258	1.00	2.00	heav
ATOM	4004	CB	ALA	2211	49.645	44.986	-11.634	1.00	11.02	heav
ATOM	4005	C	ALA	2211	50.394	43.741	-13.565	1.00	2.00	heav
ATOM	4006	O	ALA	2211	51.482	44.262	-13.702	1.00	11.02	heav
ATOM	4007	N	HIS	2212	49.855	43.203	-14.623	1.00	21.66	heav
ATOM	4009	CA	HIS	2212	50.482	43.270	-15.921	1.00	21.66	heav
ATOM	4010	CB	HIS	2212	50.316	41.956	-16.694	1.00	13.89	heav
ATOM	4011	CG	HIS	2212	50.979	41.814	-18.077	1.00	13.89	heav
ATOM	4012	CD2	HIS	2212	52.206	42.313	-18.398	1.00	13.89	heav
ATOM	4013	ND1	HIS	2212	50.547	41.160	-19.142	1.00	13.89	heav
ATOM	4015	CE1	HIS	2212	51.426	41.218	-20.071	1.00	13.89	heav
ATOM	4016	NE2	HIS	2212	52.422	41.924	-19.604	1.00	13.89	heav
ATOM	4018	C	HIS	2212	49.809	44.371	-16.720	1.00	21.66	heav
ATOM	4019	O	HIS	2212	48.874	44.111	-17.516	1.00	13.89	heav
ATOM	4020	N	PRO	2213	50.311	45.579	-16.680	1.00	7.95	heav
ATOM	4021	CD	PRO	2213	51.693	45.832	-16.381	1.00	16.11	heav
ATOM	4022	CA	PRO	2213	49.703	46.680	-17.389	1.00	7.95	heav
ATOM	4023	CB	PRO	2213	50.662	47.761	-17.017	1.00	16.11	heav

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ATOM	4024	CG	PRO	2213	51.986	47.097	-17.170	1.00	16.11	heav
ATOM	4025	C	PRO	2213	49.473	46.415	-18.901	1.00	7.95	heav
ATOM	4026	O	PRO	2213	48.383	46.603	-19.412	1.00	16.11	heav
ATOM	4027	N	ALA	2214	50.364	45.834	-19.703	1.00	10.15	heav
ATOM	4029	CA	ALA	2214	50.112	45.607	-21.132	1.00	10.15	heav
ATOM	4030	CB	ALA	2214	51.336	45.039	-21.794	1.00	26.36	heav
ATOM	4031	C	ALA	2214	48.983	44.677	-21.516	1.00	10.15	heav
ATOM	4032	O	ALA	2214	48.647	44.476	-22.688	1.00	26.36	heav
ATOM	4033	N	SER	2215	48.493	43.921	-20.538	1.00	12.93	heav
ATOM	4035	CA	SER	2215	47.324	43.119	-20.838	1.00	12.93	heav
ATOM	4036	CB	SER	2215	47.572	41.675	-20.698	1.00	17.34	heav
ATOM	4037	OG	SER	2215	48.049	41.477	-19.364	1.00	17.34	heav
ATOM	4039	C	SER	2215	46.253	43.462	-19.868	1.00	12.93	heav
ATOM	4040	O	SER	2215	45.328	42.703	-19.742	1.00	17.34	heav
ATOM	4041	N	SER	2216	46.342	44.534	-19.115	1.00	2.00	heav
ATOM	4043	CA	SER	2216	45.233	44.910	-18.252	1.00	2.00	heav
ATOM	4044	CB	SER	2216	44.085	45.397	-19.127	1.00	19.02	heav
ATOM	4045	OG	SER	2216	44.535	46.671	-19.612	1.00	19.02	heav
ATOM	4047	C	SER	2216	44.695	43.923	-17.244	1.00	2.00	heav
ATOM	4048	O	SER	2216	43.582	43.960	-16.726	1.00	19.02	heav
ATOM	4049	N	THR	2217	45.648	43.127	-16.825	1.00	9.12	heav
ATOM	4051	CA	THR	2217	45.386	42.146	-15.793	1.00	9.12	heav
ATOM	4052	CB	THR	2217	46.115	40.823	-16.043	1.00	18.16	heav
ATOM	4053	OG1	THR	2217	45.994	40.585	-17.423	1.00	18.16	heav
ATOM	4055	CG2	THR	2217	45.444	39.588	-15.489	1.00	18.16	heav
ATOM	4056	C	THR	2217	45.817	42.628	-14.436	1.00	9.12	heav
ATOM	4057	O	THR	2217	46.836	43.281	-14.303	1.00	18.16	heav
ATOM	4058	N	LYS	2218	44.977	42.465	-13.449	1.00	9.13	heav
ATOM	4060	CA	LYS	2218	45.402	42.600	-12.073	1.00	9.13	heav
ATOM	4061	CB	LYS	2218	44.833	43.759	-11.306	1.00	37.47	heav
ATOM	4062	CG	LYS	2218	45.509	45.035	-11.787	1.00	37.47	heav
ATOM	4063	CD	LYS	2218	45.256	46.342	-10.970	1.00	37.47	heav
ATOM	4064	CE	LYS	2218	45.567	47.564	-11.870	1.00	37.47	heav
ATOM	4065	NZ	LYS	2218	45.621	48.828	-11.125	1.00	37.47	heav
ATOM	4069	C	LYS	2218	44.837	41.374	-11.392	1.00	9.13	heav
ATOM	4070	O	LYS	2218	43.612	41.216	-11.329	1.00	37.47	heav
ATOM	4071	N	VAL	2219	45.669	40.416	-10.982	1.00	21.43	heav
ATOM	4073	CA	VAL	2219	45.156	39.227	-10.311	1.00	21.43	heav
ATOM	4074	CB	VAL	2219	45.777	37.911	-10.880	1.00	21.93	heav
ATOM	4075	CG1	VAL	2219	45.070	36.711	-10.209	1.00	21.93	heav
ATOM	4076	CG2	VAL	2219	45.660	37.832	-12.420	1.00	21.93	heav
ATOM	4077	C	VAL	2219	45.539	39.328	-8.837	1.00	21.43	heav
ATOM	4078	O	VAL	2219	46.617	39.849	-8.541	1.00	21.93	heav
ATOM	4079	N	ASP	2220	44.672	38.942	-7.889	1.00	31.39	heav
ATOM	4081	CA	ASP	2220	45.056	38.819	-6.476	1.00	31.39	heav
ATOM	4082	CB	ASP	2220	44.091	39.539	-5.533	1.00	27.27	heav
ATOM	4083	CG	ASP	2220	44.349	41.041	-5.447	1.00	27.27	heav
ATOM	4084	OD1	ASP	2220	45.483	41.459	-5.228	1.00	27.27	heav
ATOM	4085	OD2	ASP	2220	43.400	41.815	-5.593	1.00	27.27	heav
ATOM	4086	C	ASP	2220	45.011	37.334	-6.164	1.00	31.39	heav
ATOM	4087	O	ASP	2220	44.059	36.661	-6.583	1.00	27.27	heav
ATOM	4088	N	LYS	2221	46.064	36.781	-5.569	1.00	17.26	heav
ATOM	4090	CA	LYS	2221	46.068	35.414	-5.130	1.00	17.26	heav
ATOM	4091	CB	LYS	2221	47.056	34.727	-5.979	1.00	21.93	heav
ATOM	4092	CG	LYS	2221	46.758	33.259	-5.935	1.00	21.93	heav
ATOM	4093	CD	LYS	2221	45.429	32.882	-6.596	1.00	21.93	heav
ATOM	4094	CE	LYS	2221	45.597	32.467	-8.063	1.00	21.93	heav
ATOM	4095	NZ	LYS	2221	46.241	33.528	-8.844	1.00	21.93	heav
ATOM	4099	C	LYS	2221	46.391	35.358	-3.616	1.00	17.26	heav
ATOM	4100	O	LYS	2221	47.362	35.923	-3.049	1.00	21.93	heav
ATOM	4101	N	LYS	2222	45.475	34.715	-2.888	1.00	6.98	heav
ATOM	4103	CA	LYS	2222	45.613	34.634	-1.442	1.00	6.98	heav
ATOM	4104	CB	LYS	2222	44.253	34.637	-0.884	1.00	33.84	heav
ATOM	4105	CG	LYS	2222	43.982	35.576	0.279	1.00	33.84	heav
ATOM	4106	CD	LYS	2222	42.440	35.734	0.414	1.00	33.84	heav
ATOM	4107	CE	LYS	2222	41.707	36.357	-0.841	1.00	33.84	heav
ATOM	4108	NZ	LYS	2222	42.271	37.645	-1.340	1.00	33.84	heav

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ATOM	4112	C	LYS	2222	46.371	33.364	-1.081	1.00	6.98	
ATOM	4113	O	LYS	2222	46.117	32.257	-1.597	1.00	33.84	heav
ATOM	4114	N	ILE	2223	47.394	33.541	-0.234	1.00	34.84	heav
ATOM	4116	CA	ILE	2223	48.312	32.427	0.045	1.00	34.84	heav
ATOM	4117	CB	ILE	2223	49.747	32.998	0.158	1.00	14.26	heav
ATOM	4118	CG2	ILE	2223	50.673	31.810	0.382	1.00	14.26	heav
ATOM	4119	CG1	ILE	2223	50.173	33.815	-1.078	1.00	14.26	heav
ATOM	4120	CD1	ILE	2223	50.767	33.036	-2.255	1.00	14.26	heav
ATOM	4121	C	ILE	2223	47.859	31.675	1.317	1.00	34.84	heav
ATOM	4122	O	ILE	2223	48.041	32.006	2.503	1.00	14.26	heav
ATOM	4123	N	VAL	2224	47.083	30.650	0.938	1.00	24.58	heav
ATOM	4125	CA	VAL	2224	46.434	29.703	1.857	1.00	24.58	heav
ATOM	4126	CB	VAL	2224	44.944	29.404	1.423	1.00	22.99	heav
ATOM	4127	CG1	VAL	2224	44.037	30.518	1.907	1.00	22.99	heav
ATOM	4128	CG2	VAL	2224	44.835	29.313	-0.094	1.00	22.99	heav
ATOM	4129	C	VAL	2224	47.195	28.389	1.916	1.00	24.58	heav
ATOM	4130	O	VAL	2224	47.758	28.039	0.881	1.00	22.99	heav
ATOM	4131	N	PRO	2225	47.236	27.630	3.043	1.00	29.11	heav
ATOM	4132	CD	PRO	2225	46.635	28.025	4.339	1.00	19.53	heav
ATOM	4133	CA	PRO	2225	47.980	26.344	3.171	1.00	29.11	heav
ATOM	4134	CB	PRO	2225	48.254	26.207	4.658	1.00	19.53	heav
ATOM	4135	CG	PRO	2225	47.016	26.872	5.262	1.00	19.53	heav
ATOM	4136	C	PRO	2225	47.305	25.122	2.592	1.00	29.11	heav
ATOM	4137	O	PRO	2225	46.092	25.148	2.320	1.00	19.53	heav
ATOM	4138	N	ARG	2226	48.125	24.071	2.449	1.00	40.93	heav
ATOM	4140	CA	ARG	2226	47.699	22.867	1.672	1.00	40.93	heav
ATOM	4141	CB	ARG	2226	49.013	22.141	1.268	1.00	35.71	heav
ATOM	4142	CG	ARG	2226	49.923	23.067	0.474	1.00	35.71	heav
ATOM	4143	CD	ARG	2226	50.885	22.329	-0.415	1.00	35.71	heav
ATOM	4144	NE	ARG	2226	51.741	23.328	-1.067	1.00	35.71	heav
ATOM	4146	CZ	ARG	2226	52.368	23.106	-2.260	1.00	35.71	heav
ATOM	4147	NH1	ARG	2226	52.156	21.892	-2.853	1.00	35.71	heav
ATOM	4150	NH2	ARG	2226	53.248	24.033	-2.777	1.00	35.71	heav
ATOM	4153	C	ARG	2226	46.641	21.800	2.110	1.00	40.93	heav
ATOM	4154	OT1	ARG	2226	46.813	21.183	3.170	1.00	35.71	heav
ATOM	4155	OT2	ARG	2226	45.651	21.563	1.378	1.00	35.71	heav
ATOM	4156	C	GLY	3002	77.488	79.557	-22.677	1.00	34.29	pept
ATOM	4157	O	GLY	3002	77.644	78.753	-23.600	1.00	32.36	pept
ATOM	4160	N	GLY	3002	75.875	80.408	-24.322	1.00	34.29	pept
ATOM	4162	CA	GLY	3002	76.405	80.614	-22.961	1.00	34.29	pept
ATOM	4163	N	SER	3003	78.204	79.424	-21.538	1.00	35.27	pept
ATOM	4165	CA	SER	3003	79.315	78.457	-21.343	1.00	35.27	pept
ATOM	4166	CB	SER	3003	80.037	78.672	-19.959	1.00	33.05	pept
ATOM	4167	OG	SER	3003	80.872	79.857	-19.880	1.00	33.05	pept
ATOM	4169	C	SER	3003	78.987	76.971	-21.430	1.00	35.27	pept
ATOM	4170	O	SER	3003	78.561	76.229	-20.504	1.00	33.05	pept
ATOM	4171	N	ILE	3004	79.144	76.608	-22.704	1.00	27.48	pept
ATOM	4173	CA	ILE	3004	79.027	75.202	-23.093	1.00	27.48	pept
ATOM	4174	CB	ILE	3004	77.863	74.812	-24.017	1.00	15.46	pept
ATOM	4175	CG2	ILE	3004	76.927	73.884	-23.267	1.00	15.46	pept
ATOM	4176	CG1	ILE	3004	77.203	76.058	-24.581	1.00	15.46	pept
ATOM	4177	CD1	ILE	3004	76.078	75.504	-25.261	1.00	15.46	pept
ATOM	4178	C	ILE	3004	80.231	74.743	-23.900	1.00	27.48	pept
ATOM	4179	O	ILE	3004	81.051	75.555	-24.287	1.00	15.46	pept
ATOM	4180	N	GLY	3005	80.391	73.432	-24.064	1.00	24.56	pept
ATOM	4182	CA	GLY	3005	81.551	72.887	-24.727	1.00	24.56	pept
ATOM	4183	C	GLY	3005	81.696	73.313	-26.175	1.00	24.56	pept
ATOM	4184	O	GLY	3005	80.711	73.499	-26.894	1.00	9.31	pept
ATOM	4185	N	PRO	3006	82.914	73.418	-26.726	1.00	11.21	pept
ATOM	4186	CD	PRO	3006	84.103	73.004	-26.043	1.00	14.67	pept
ATOM	4187	CA	PRO	3006	83.116	73.723	-28.154	1.00	11.21	pept
ATOM	4188	CB	PRO	3006	84.546	73.567	-28.411	1.00	14.67	pept
ATOM	4189	CG	PRO	3006	85.087	72.899	-27.174	1.00	14.67	pept
ATOM	4190	C	PRO	3006	82.356	72.916	-29.179	1.00	11.21	pept
ATOM	4191	O	PRO	3006	82.176	73.408	-30.274	1.00	14.67	pept
ATOM	4192	N	GLY	3007	81.942	71.687	-28.903	1.00	2.00	pept
ATOM	4194	CA	GLY	3007	81.302	70.847	-29.886	1.00	2.00	pept

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ATOM	4195	C	GLY	3007	79.810	70.783	-29.794	1.00	2.00	pept
ATOM	4196	O	GLY	3007	79.146	69.972	-30.427	1.00	18.99	pept
ATOM	4197	N	ARG	3008	79.194	71.548	-28.930	1.00	5.28	pept
ATOM	4199	CA	ARG	3008	77.756	71.541	-28.888	1.00	5.28	pept
ATOM	4200	CB	ARG	3008	77.375	72.216	-27.607	1.00	13.55	pept
ATOM	4201	CG	ARG	3008	77.839	71.479	-26.374	1.00	13.55	pept
ATOM	4202	CD	ARG	3008	77.025	70.232	-26.454	1.00	13.55	pept
ATOM	4203	NE	ARG	3008	76.460	69.883	-25.169	1.00	13.55	pept
ATOM	4205	CZ	ARG	3008	75.168	69.725	-24.933	1.00	13.55	pept
ATOM	4206	NH1	ARG	3008	74.181	69.861	-25.823	1.00	13.55	pept
ATOM	4209	NH2	ARG	3008	74.840	69.545	-23.687	1.00	13.55	pept
ATOM	4212	C	ARG	3008	77.193	72.248	-30.122	1.00	5.28	pept
ATOM	4213	O	ARG	3008	77.761	73.211	-30.612	1.00	13.55	pept
ATOM	4214	N	ALA	3009	76.102	71.875	-30.734	1.00	2.00	pept
ATOM	4216	CA	ALA	3009	75.613	72.672	-31.835	1.00	2.00	pept
ATOM	4217	CB	ALA	3009	74.727	71.860	-32.688	1.00	12.33	pept
ATOM	4218	C	ALA	3009	74.858	73.924	-31.458	1.00	2.00	pept
ATOM	4219	O	ALA	3009	74.684	74.784	-32.304	1.00	12.33	pept
ATOM	4220	N	PHE	3010	74.384	74.077	-30.227	1.00	9.04	pept
ATOM	4222	CA	PHE	3010	73.610	75.219	-29.757	1.00	9.04	pept
ATOM	4223	CB	PHE	3010	72.198	74.820	-29.486	1.00	10.58	pept
ATOM	4224	CG	PHE	3010	71.473	74.378	-30.743	1.00	10.58	pept
ATOM	4225	CD1	PHE	3010	71.534	73.064	-31.133	1.00	10.58	pept
ATOM	4226	CD2	PHE	3010	70.800	75.279	-31.534	1.00	10.58	pept
ATOM	4227	CE1	PHE	3010	70.931	72.690	-32.319	1.00	10.58	pept
ATOM	4228	CE2	PHE	3010	70.196	74.897	-32.716	1.00	10.58	pept
ATOM	4229	CZ	PHE	3010	70.260	73.596	-33.121	1.00	10.58	pept
ATOM	4230	C	PHE	3010	74.168	75.734	-28.405	1.00	9.04	pept
ATOM	4231	O	PHE	3010	74.867	74.920	-27.811	1.00	10.58	pept
ATOM	4232	N	GLY	3011	73.771	76.956	-27.902	1.00	19.04	pept
ATOM	4234	CA	GLY	3011	74.163	77.459	-26.583	1.00	19.04	pept
ATOM	4235	C	GLY	3011	73.756	78.788	-26.078	1.00	19.04	pept
ATOM	4236	O	GLY	3011	73.690	79.696	-26.839	1.00	56.42	pept
ATOM	4237	N	GLY	3012	73.579	78.992	-24.748	1.00	90.50	pept
ATOM	4239	CA	GLY	3012	72.999	80.336	-24.227	1.00	90.50	pept
ATOM	4240	C	GLY	3012	71.444	80.434	-23.922	1.00	90.50	pept
ATOM	4241	OT1	GLY	3012	70.927	81.495	-23.452	1.00	95.89	pept
ATOM	4242	OT2	GLY	3012	70.734	79.421	-24.163	1.00	95.89	pept

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APPENDIX B

ATOM	1	CB	ASP	1	59.533	63.386	8.455	1.00	67.72	lite	0
ATOM	2	CG	ASP	1	60.616	62.860	9.413	1.00	67.72	lite	0
ATOM	3	OD1	ASP	1	60.800	63.425	10.510	1.00	67.72	lite	0
ATOM	4	OD2	ASP	1	61.134	61.777	9.124	1.00	67.72	lite	0
ATOM	5	C	ASP	1	58.116	62.348	10.173	1.00	30.93	lite	0
ATOM	6	O	ASP	1	58.695	61.468	10.815	1.00	67.72	lite	0
ATOM	7	N	ASP	1	57.108	62.946	7.800	1.00	30.93	lite	0
ATOM	8	CA	ASP	1	58.257	62.492	8.635	1.00	30.93	lite	0
ATOM	9	N	ILE	2	57.662	63.444	10.728	1.00	2.00	lite	0
ATOM	10	CA	ILE	2	57.231	63.520	12.082	1.00	2.00	lite	0
ATOM	11	CB	ILE	2	56.251	64.597	12.060	1.00	2.00	lite	0
ATOM	12	CG2	ILE	2	55.534	64.618	13.376	1.00	2.00	lite	0
ATOM	13	CG1	ILE	2	56.953	65.875	11.796	1.00	2.00	lite	0
ATOM	14	CD1	ILE	2	56.107	66.900	11.052	1.00	2.00	lite	0
ATOM	15	C	ILE	2	56.648	62.222	12.621	1.00	2.00	lite	0
ATOM	16	O	ILE	2	55.765	61.562	12.049	1.00	2.00	lite	0
ATOM	17	N	VAL	3	57.257	61.905	13.718	1.00	2.00	lite	0
ATOM	18	CA	VAL	3	56.829	60.751	14.396	1.00	2.00	lite	0
ATOM	19	CB	VAL	3	58.109	60.229	14.896	1.00	10.13	lite	0
ATOM	20	CG1	VAL	3	57.900	59.251	16.014	1.00	10.13	lite	0
ATOM	21	CG2	VAL	3	58.791	59.567	13.715	1.00	10.13	lite	0
ATOM	22	C	VAL	3	55.790	61.182	15.412	1.00	2.00	lite	0
ATOM	23	O	VAL	3	55.976	62.136	16.173	1.00	10.13	lite	0
ATOM	24	N	MET	4	54.684	60.469	15.383	1.00	2.00	lite	0
ATOM	25	CA	MET	4	53.569	60.781	16.223	1.00	2.00	lite	0
ATOM	26	CB	MET	4	52.309	60.788	15.392	1.00	13.18	lite	0
ATOM	27	CG	MET	4	52.362	61.758	14.225	1.00	13.18	lite	0
ATOM	28	SD	MET	4	52.329	63.496	14.638	1.00	13.18	lite	0
ATOM	29	CE	MET	4	50.738	63.544	15.332	1.00	13.18	lite	0
ATOM	30	C	MET	4	53.494	59.735	17.306	1.00	2.00	lite	0
ATOM	31	O	MET	4	53.365	58.519	17.137	1.00	13.18	lite	0
ATOM	32	N	THR	5	53.606	60.286	18.482	1.00	2.00	lite	0
ATOM	33	CA	THR	5	53.606	59.519	19.689	1.00	2.00	lite	0
ATOM	34	CB	THR	5	54.843	59.921	20.467	1.00	30.34	lite	0
ATOM	35	CG1	THR	5	55.930	60.150	19.571	1.00	30.34	lite	0
ATOM	36	CG2	THR	5	55.230	58.800	21.398	1.00	30.34	lite	0
ATOM	37	C	THR	5	52.358	59.670	20.543	1.00	2.00	lite	0
ATOM	38	O	THR	5	52.075	60.708	21.152	1.00	30.34	lite	0
ATOM	39	N	GLN	6	51.561	58.602	20.540	1.00	13.20	lite	0
ATOM	40	CA	GLN	6	50.346	58.562	21.329	1.00	13.20	lite	0
ATOM	41	CB	GLN	6	49.271	57.759	20.677	1.00	13.97	lite	0
ATOM	42	CG	GLN	6	48.680	58.410	19.457	1.00	13.97	lite	0
ATOM	43	CD	GLN	6	47.565	57.552	18.904	1.00	13.97	lite	0
ATOM	44	OE1	GLN	6	47.281	57.574	17.713	1.00	13.97	lite	0
ATOM	45	NE2	GLN	6	46.870	56.724	19.652	1.00	13.97	lite	0
ATOM	46	C	GLN	6	50.674	57.899	22.619	1.00	13.20	lite	0
ATOM	47	O	GLN	6	51.567	57.060	22.666	1.00	13.97	lite	0
ATOM	48	N	SER	7	49.924	58.263	23.629	1.00	2.00	lite	0
ATOM	49	CA	SER	7	50.081	57.746	24.947	1.00	2.00	lite	0
ATOM	50	CB	SER	7	51.223	58.472	25.523	1.00	14.14	lite	0
ATOM	51	OG	SER	7	51.012	58.722	26.891	1.00	14.14	lite	0
ATOM	52	C	SER	7	48.777	58.010	25.672	1.00	2.00	lite	0
ATOM	53	O	SER	7	48.136	59.024	25.407	1.00	14.14	lite	0
ATOM	54	N	CPR	8	48.201	57.121	26.480	1.00	15.02	lite	0
ATOM	55	CD	CPR	8	47.116	57.431	27.408	1.00	2.00	lite	0
ATOM	56	CA	CPR	8	48.651	55.774	26.782	1.00	15.02	lite	0
ATOM	57	CB	CPR	8	47.830	55.315	27.918	1.00	2.00	lite	0
ATOM	58	CG	CPR	8	46.536	56.039	27.694	1.00	2.00	lite	0
ATOM	59	C	CPR	8	48.452	54.845	25.620	1.00	15.02	lite	0
ATOM	60	O	CPR	8	47.689	55.117	24.702	1.00	2.00	lite	0
ATOM	61	N	ALA	9	49.116	53.717	25.711	1.00	2.00	lite	0
ATOM	62	CA	ALA	9	48.951	52.737	24.677	1.00	2.00	lite	0
ATOM	63	CB	ALA	9	50.028	51.695	24.742	1.00	21.76	lite	0
ATOM	64	C	ALA	9	47.599	52.096	24.905	1.00	2.00	lite	0
ATOM	65	O	ALA	9	46.980	51.784	23.892	1.00	21.76	lite	0

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ATOM	66	N	SER	10	47.067	51.916	26.130	1.00	2.00	lite	0
ATOM	67	CA	SER	10	45.699	51.421	26.2.3	1.00	2.00	lite	0
ATOM	68	CB	SER	10	45.646	49.949	26.264	1.00	15.93	lite	0
ATOM	69	OG	SER	10	46.456	49.445	27.281	1.00	15.93	lite	0
ATOM	70	C	SER	10	45.123	51.877	27.603	1.00	2.00	lite	0
ATOM	71	O	SER	10	45.926	52.264	28.449	1.00	15.93	lite	0
ATOM	72	N	LEU	11	43.832	51.939	27.797	1.00	2.00	lite	0
ATOM	73	CA	LEU	11	43.334	52.386	29.062	1.00	2.00	lite	0
ATOM	74	CB	LEU	11	43.366	53.890	29.153	1.00	2.00	lite	0
ATOM	75	CG	LEU	11	42.854	54.957	28.235	1.00	2.00	lite	0
ATOM	76	CD1	LEU	11	42.102	54.450	27.087	1.00	2.00	lite	0
ATOM	77	CD2	LEU	11	41.998	55.823	29.091	1.00	2.00	lite	0
ATOM	78	C	LEU	11	41.942	51.918	29.387	1.00	2.00	lite	0
ATOM	79	O	LEU	11	41.241	51.501	28.492	1.00	2.00	lite	0
ATOM	80	N	VAL	12	41.470	51.892	30.611	1.00	2.00	lite	0
ATOM	81	CA	VAL	12	40.202	51.276	30.881	1.00	2.00	lite	0
ATOM	82	CB	VAL	12	40.368	50.121	31.820	1.00	8.56	lite	0
ATOM	83	CG1	VAL	12	39.129	49.301	31.732	1.00	8.56	lite	0
ATOM	84	CG2	VAL	12	41.511	49.260	31.441	1.00	8.56	lite	0
ATOM	85	C	VAL	12	39.457	52.361	31.561	1.00	2.00	lite	0
ATOM	86	O	VAL	12	39.869	52.755	32.661	1.00	8.56	lite	0
ATOM	87	N	VAL	13	38.436	52.910	30.954	1.00	2.00	lite	0
ATOM	88	CA	VAL	13	37.789	53.982	31.665	1.00	2.00	lite	0
ATOM	89	CB	VAL	13	38.043	55.200	30.770	1.00	9.46	lite	0
ATOM	90	CG1	VAL	13	36.937	55.569	29.888	1.00	9.46	lite	0
ATOM	91	CG2	VAL	13	38.209	56.346	31.691	1.00	9.46	lite	0
ATOM	92	C	VAL	13	36.337	53.617	31.977	1.00	2.00	lite	0
ATOM	93	O	VAL	13	35.766	52.870	31.193	1.00	9.46	lite	0
ATOM	94	N	SER	14	35.675	53.977	33.070	1.00	2.00	lite	0
ATOM	95	CA	SER	14	34.324	53.483	33.320	1.00	2.00	lite	0
ATOM	96	CB	SER	14	34.092	53.351	34.794	1.00	31.61	lite	0
ATOM	97	OG	SER	14	35.245	53.857	35.493	1.00	31.61	lite	0
ATOM	98	C	SER	14	33.321	54.446	32.731	1.00	2.00	lite	0
ATOM	99	O	SER	14	33.630	55.619	32.501	1.00	31.61	lite	0
ATOM	100	N	LEU	15	32.132	53.953	32.408	1.00	2.00	lite	0
ATOM	101	CA	LEU	15	31.086	54.779	31.819	1.00	2.00	lite	0
ATOM	102	CB	LEU	15	29.797	54.018	31.814	1.00	14.20	lite	0
ATOM	103	CG	LEU	15	29.829	52.842	30.909	1.00	14.20	lite	0
ATOM	104	CD1	LEU	15	28.943	51.693	31.313	1.00	14.20	lite	0
ATOM	105	CD2	LEU	15	29.467	53.455	29.596	1.00	14.20	lite	0
ATOM	106	C	LEU	15	30.856	56.101	32.545	1.00	2.00	lite	0
ATOM	107	O	LEU	15	30.976	56.192	33.767	1.00	14.20	lite	0
ATOM	108	N	GLY	16	30.581	57.188	31.820	1.00	25.70	lite	0
ATOM	109	CA	GLY	16	30.332	58.486	32.406	1.00	25.70	lite	0
ATOM	110	C	GLY	16	31.631	59.174	32.721	1.00	25.70	lite	0
ATOM	111	O	GLY	16	31.643	60.375	32.962	1.00	40.88	lite	0
ATOM	112	N	GLN	17	32.747	58.470	32.704	1.00	2.00	lite	0
ATOM	113	CA	GLN	17	34.028	59.066	33.011	1.00	2.00	lite	0
ATOM	114	CB	GLN	17	34.944	57.972	33.549	1.00	45.32	lite	0
ATOM	115	CG	GLN	17	34.450	57.508	34.890	1.00	45.32	lite	0
ATOM	116	CD	GLN	17	34.166	58.744	35.702	1.00	45.32	lite	0
ATOM	117	OE1	GLN	17	35.039	59.582	35.902	1.00	45.32	lite	0
ATOM	118	NE2	GLN	17	32.920	58.970	36.064	1.00	45.32	lite	0
ATOM	119	C	GLN	17	34.754	59.813	31.925	1.00	2.00	lite	0
ATOM	120	O	GLN	17	34.250	59.982	30.807	1.00	45.32	lite	0
ATOM	121	N	ARG	18	35.961	60.263	32.239	1.00	2.00	lite	0
ATOM	122	CA	ARG	18	36.694	60.887	31.197	1.00	2.00	lite	0
ATOM	123	CB	ARG	18	36.885	62.303	31.545	1.00	58.93	lite	0
ATOM	124	CG	ARG	18	37.792	62.612	32.684	1.00	58.93	lite	0
ATOM	125	CD	ARG	18	38.632	63.796	32.220	1.00	58.93	lite	0
ATOM	126	NE	ARG	18	37.792	64.885	31.745	1.00	58.93	lite	0
ATOM	127	CZ	ARG	18	37.734	66.070	32.358	1.00	58.93	lite	0
ATOM	128	NH1	ARG	18	38.459	66.331	33.464	1.00	58.93	lite	0
ATOM	129	NH2	ARG	18	36.925	67.016	31.851	1.00	58.93	lite	0
ATOM	130	C	ARG	18	38.003	60.238	30.903	1.00	2.00	lite	0
ATOM	131	O	ARG	18	38.763	59.783	31.753	1.00	58.93	lite	0
ATOM	132	N	ALA	19	38.207	60.143	29.604	1.00	2.00	lite	0

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ATOM	133	CA	ALA	19	39.416	59.557	29.084	1.00	2.00	lite	0
ATOM	134	CB	ALA	19	39.094	58.540	28.028	1.00	2.00	lite	0
ATOM	135	C	ALA	19	40.062	60.739	28.433	1.00	2.00	lite	0
ATOM	136	O	ALA	19	39.389	61.621	27.892	1.00	2.00	lite	0
ATOM	137	N	THR	20	41.370	60.646	28.400	1.00	2.00	lite	0
ATOM	138	CA	THR	20	42.243	61.661	27.833	1.00	2.00	lite	0
ATOM	139	CB	THR	20	42.877	52.433	28.970	1.00	23.05	lite	0
ATOM	140	OG1	THR	20	41.797	63.169	29.510	1.00	23.05	lite	0
ATOM	141	CG2	THR	20	44.055	63.274	28.594	1.00	23.05	lite	0
ATOM	142	C	THR	20	43.330	61.002	27.021	1.00	2.00	lite	0
ATOM	143	O	THR	20	44.242	60.420	27.625	1.00	23.05	lite	0
ATOM	144	N	ILE	21	43.283	61.042	25.705	1.00	2.00	lite	0
ATOM	145	CA	ILE	21	44.360	60.464	24.946	1.00	2.00	lite	0
ATOM	146	CB	ILE	21	43.676	59.698	23.860	1.00	9.42	lite	0
ATOM	147	CG2	ILE	21	44.764	59.050	23.060	1.00	9.42	lite	0
ATOM	148	CG1	ILE	21	42.741	58.638	24.401	1.00	9.42	lite	0
ATOM	149	CD1	ILE	21	42.061	57.813	23.308	1.00	9.42	lite	0
ATOM	150	C	ILE	21	45.275	61.576	24.463	1.00	2.00	lite	0
ATOM	151	O	ILE	21	44.799	62.649	24.087	1.00	9.42	lite	0
ATOM	152	N	SER	22	46.578	61.427	24.438	1.00	2.00	lite	0
ATOM	153	CA	SER	22	47.458	62.505	23.995	1.00	2.00	lite	0
ATOM	154	CB	SER	22	48.309	62.972	25.145	1.00	24.32	lite	0
ATOM	155	OG	SER	22	49.000	61.923	25.836	1.00	24.32	lite	0
ATOM	156	C	SER	22	48.356	62.054	22.875	1.00	2.00	lite	0
ATOM	157	O	SER	22	48.767	60.899	22.784	1.00	24.32	lite	0
ATOM	158	N	CYS	23	48.676	62.959	21.984	1.00	11.05	lite	0
ATOM	159	CA	CYS	23	49.455	62.639	20.803	1.00	11.05	lite	0
ATOM	160	C	CYS	23	50.440	63.751	20.606	1.00	11.05	lite	0
ATOM	161	O	CYS	23	50.058	64.913	20.616	1.00	2.00	lite	0
ATOM	162	CB	CYS	23	48.486	62.531	19.673	1.00	2.00	lite	0
ATOM	163	SG	CYS	23	49.184	62.275	18.034	1.00	2.00	lite	0
ATOM	164	N	ARG	24	51.693	63.375	20.547	1.00	2.00	lite	0
ATOM	165	CA	ARG	24	52.784	64.292	20.393	1.00	2.00	lite	0
ATOM	166	CB	ARG	24	53.786	64.182	21.506	1.00	54.53	lite	0
ATOM	167	CG	ARG	24	53.408	64.837	22.795	1.00	54.53	lite	0
ATOM	168	CD	ARG	24	54.601	64.451	23.625	1.00	54.53	lite	0
ATOM	169	NE	ARG	24	54.677	65.166	24.890	1.00	54.53	lite	0
ATOM	170	CZ	ARG	24	54.808	64.555	26.093	1.00	54.53	lite	0
ATOM	171	NH1	ARG	24	54.869	63.224	26.247	1.00	54.53	lite	0
ATOM	172	NH2	ARG	24	54.936	65.310	27.190	1.00	54.53	lite	0
ATOM	173	C	ARG	24	53.547	64.046	19.095	1.00	2.00	lite	0
ATOM	174	O	ARG	24	53.791	62.939	18.618	1.00	54.53	lite	0
ATOM	175	N	ALA	25	53.921	65.167	18.510	1.00	2.00	lite	0
ATOM	176	CA	ALA	25	54.557	65.151	17.227	1.00	2.00	lite	0
ATOM	177	CB	ALA	25	53.846	66.087	16.294	1.00	8.62	lite	0
ATOM	178	C	ALA	25	55.951	65.646	17.452	1.00	2.00	lite	0
ATOM	179	O	ALA	25	56.064	66.646	18.152	1.00	8.62	lite	0
ATOM	180	N	SER	26	56.977	64.964	16.914	1.00	14.83	lite	0
ATOM	181	CA	SER	26	58.399	65.329	16.967	1.00	14.83	lite	0
ATOM	182	CB	SER	26	59.233	64.361	16.204	1.00	19.92	lite	0
ATOM	183	OG	SER	26	58.457	63.939	15.090	1.00	19.92	lite	0
ATOM	184	C	SER	26	58.809	66.681	16.433	1.00	14.83	lite	0
ATOM	185	O	SER	26	59.955	67.065	16.601	1.00	19.92	lite	0
ATOM	186	N	GLU	27	57.909	67.380	15.753	1.00	25.94	lite	0
ATOM	187	CA	GLU	27	58.144	68.646	15.143	1.00	25.94	lite	0
ATOM	188	CB	GLU	27	58.836	68.443	13.826	1.00	62.64	lite	0
ATOM	189	CG	GLU	27	60.247	68.996	13.839	1.00	62.64	lite	0
ATOM	190	CD	GLU	27	61.181	68.164	12.966	1.00	62.64	lite	0
ATOM	191	OE1	GLU	27	61.404	68.562	11.808	1.00	62.64	lite	0
ATOM	192	OE2	GLU	27	61.663	67.118	13.452	1.00	62.64	lite	0
ATOM	193	C	GLU	27	56.760	69.198	14.941	1.00	25.94	lite	0
ATOM	194	O	GLU	27	55.743	68.507	14.998	1.00	62.64	lite	0
ATOM	195	N	SER	28	56.743	70.486	14.669	1.00	2.00	lite	0
ATOM	196	CA	SER	28	55.497	71.148	14.479	1.00	2.00	lite	0
ATOM	197	CB	SER	28	55.693	72.609	14.437	1.00	27.41	lite	0
ATOM	198	OG	SER	28	54.361	73.084	14.416	1.00	27.41	lite	0
ATOM	199	C	SER	28	54.786	70.741	13.220	1.00	2.00	lite	0

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ATOM	200	O	SER	28	55.273	70.759	12.075	1.00	27.41	lite	0
ATOM	201	N	VAL	29	53.521	70.531	13.535	1.00	2.00	lite	0
ATOM	202	CA	VAL	29	52.666	70.165	12.457	1.00	2.00	lite	0
ATOM	203	CB	VAL	29	51.774	68.984	12.871	1.00	2.00	lite	0
ATOM	204	CG1	VAL	29	52.670	67.812	13.138	1.00	2.00	lite	0
ATOM	205	CG2	VAL	29	50.963	69.290	14.070	1.00	2.00	lite	0
ATOM	206	C	VAL	29	51.850	71.359	12.073	1.00	2.00	lite	0
ATOM	207	O	VAL	29	50.702	71.143	11.646	1.00	2.00	lite	0
ATOM	208	N	ASP	30	52.400	72.575	12.236	1.00	17.66	lite	0
ATOM	209	CA	ASP	30	51.681	73.814	11.907	1.00	17.66	lite	0
ATOM	210	CB	ASP	30	51.838	74.867	13.003	1.00	49.58	lite	0
ATOM	211	CG	ASP	30	51.079	74.589	14.289	1.00	49.58	lite	0
ATOM	212	OD1	ASP	30	51.286	75.291	15.278	1.00	49.58	lite	0
ATOM	213	OD2	ASP	30	50.299	73.653	14.310	1.00	49.58	lite	0
ATOM	214	C	ASP	30	52.054	74.522	10.607	1.00	17.66	lite	0
ATOM	215	O	ASP	30	53.225	74.535	10.185	1.00	49.58	lite	0
ATOM	216	N	SER	31	51.026	75.089	9.980	1.00	27.08	lite	0
ATOM	217	CA	SER	31	51.208	75.908	8.799	1.00	27.08	lite	0
ATOM	218	CB	SER	31	51.438	75.030	7.573	1.00	53.95	lite	0
ATOM	219	OG	SER	31	50.349	74.168	7.280	1.00	53.95	lite	0
ATOM	220	C	SER	31	49.926	76.725	8.631	1.00	27.08	lite	0
ATOM	221	O	SER	31	48.870	76.225	9.054	1.00	53.95	lite	0
ATOM	222	N	TYR	32	49.954	77.931	8.001	1.00	34.72	lite	0
ATOM	223	CA	TYR	32	48.829	78.879	7.852	1.00	34.72	lite	0
ATOM	224	CB	TYR	32	47.805	78.409	6.782	1.00	45.25	lite	0
ATOM	225	CG	TYR	32	48.499	78.087	5.466	1.00	45.25	lite	0
ATOM	226	CD1	TYR	32	48.401	76.818	4.950	1.00	45.25	lite	0
ATOM	227	CE1	TYR	32	49.109	76.463	3.808	1.00	45.25	lite	0
ATOM	228	CD2	TYR	32	49.308	79.001	4.815	1.00	45.25	lite	0
ATOM	229	CE2	TYR	32	50.018	78.656	3.673	1.00	45.25	lite	0
ATOM	230	CZ	TYR	32	49.931	77.373	3.159	1.00	45.25	lite	0
ATOM	231	OH	TYR	32	50.679	76.965	2.050	1.00	45.25	lite	0
ATOM	232	C	TYR	32	48.077	79.123	9.156	1.00	34.72	lite	0
ATOM	233	O	TYR	32	46.848	79.333	9.185	1.00	45.25	lite	0
ATOM	234	N	GLY	33	48.938	79.049	10.208	1.00	33.99	lite	0
ATOM	235	CA	GLY	33	48.522	79.148	11.597	1.00	33.99	lite	0
ATOM	236	C	GLY	33	47.425	78.158	12.017	1.00	33.99	lite	0
ATOM	237	O	GLY	33	46.618	78.507	12.881	1.00	47.90	lite	0
ATOM	238	N	LYS	34	47.351	76.945	11.432	1.00	56.14	lite	0
ATOM	239	CA	LYS	34	46.438	75.872	11.822	1.00	56.14	lite	0
ATOM	240	CB	LYS	34	45.456	75.625	10.681	1.00	47.79	lite	0
ATOM	241	CG	LYS	34	44.350	76.656	10.456	1.00	47.79	lite	0
ATOM	242	CD	LYS	34	43.672	76.435	9.074	1.00	47.79	lite	0
ATOM	243	CE	LYS	34	42.117	76.678	9.034	1.00	47.79	lite	0
ATOM	244	NZ	LYS	34	41.471	76.533	7.723	1.00	47.79	lite	0
ATOM	245	C	LYS	34	47.298	74.615	12.113	1.00	56.14	lite	0
ATOM	246	O	LYS	34	48.446	74.515	11.637	1.00	47.79	lite	0
ATOM	247	N	SER	35	46.847	73.655	12.940	1.00	23.71	lite	0
ATOM	248	CA	SER	35	47.627	72.457	13.200	1.00	23.71	lite	0
ATOM	249	CB	SER	35	47.634	72.207	14.641	1.00	19.18	lite	0
ATOM	250	OG	SER	35	48.033	73.368	15.374	1.00	19.18	lite	0
ATOM	251	C	SER	35	46.950	71.328	12.456	1.00	23.71	lite	0
ATOM	252	O	SER	35	45.786	70.913	12.658	1.00	19.18	lite	0
ATOM	253	N	PHE	36	47.759	70.847	11.533	1.00	16.57	lite	0
ATOM	254	CA	PHE	36	47.232	69.934	10.584	1.00	16.57	lite	0
ATOM	255	CB	PHE	36	47.926	70.198	9.281	1.00	21.87	lite	0
ATOM	256	CG	PHE	36	47.264	71.325	8.500	1.00	21.87	lite	0
ATOM	257	CD1	PHE	36	47.881	72.556	8.388	1.00	21.87	lite	0
ATOM	258	CD2	PHE	36	46.046	71.097	7.912	1.00	21.87	lite	0
ATOM	259	CE1	PHE	36	47.267	73.552	7.676	1.00	21.87	lite	0
ATOM	260	CE2	PHE	36	45.439	72.098	7.201	1.00	21.87	lite	0
ATOM	261	CZ	PHE	36	46.048	73.318	7.091	1.00	21.87	lite	0
ATOM	262	C	PHE	36	47.363	68.511	10.996	1.00	16.57	lite	0
ATOM	263	O	PHE	36	47.963	67.717	10.262	1.00	21.87	lite	0
ATOM	264	N	MET	37	46.783	68.211	12.166	1.00	14.25	lite	0
ATOM	265	CA	MET	37	46.769	66.861	12.676	1.00	14.25	lite	0
ATOM	266	CB	MET	37	47.721	66.691	13.861	1.00	22.88	lite	0

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ATOM	267	CG	MET	37	47.348	67.331	15.140	1.00	22.88	lite	0
ATOM	268	SD	MET	37	45.893	66.599	15.893	1.00	22.88	lite	0
ATOM	269	CE	MET	37	46.669	65.055	16.225	1.00	22.88	lite	0
ATOM	270	C	MET	37	45.333	66.593	13.072	1.00	14.25	lite	0
ATOM	271	O	MET	37	44.563	67.495	13.410	1.00	22.88	lite	0
ATOM	272	N	HIS	38	44.942	65.341	12.866	1.00	13.33	lite	0
ATOM	273	CA	HIS	38	43.577	64.883	13.013	1.00	13.33	lite	0
ATOM	274	CB	HIS	38	42.987	64.627	11.647	1.00	31.69	lite	0
ATOM	275	CG	HIS	38	43.428	65.595	10.548	1.00	31.69	lite	0
ATOM	276	CD2	HIS	38	43.978	65.178	9.361	1.00	31.69	lite	0
ATOM	277	ND1	HIS	38	43.403	66.914	10.477	1.00	31.69	lite	0
ATOM	278	CE1	HIS	38	43.906	67.286	9.314	1.00	31.69	lite	0
ATOM	279	NE2	HIS	38	44.246	66.231	8.648	1.00	31.69	lite	0
ATOM	280	C	HIS	38	43.490	63.594	13.836	1.00	13.33	lite	0
ATOM	281	O	HIS	38	44.467	62.855	13.915	1.00	31.69	lite	0
ATOM	282	N	TRP	39	42.364	63.318	14.468	1.00	2.00	lite	0
ATOM	283	CA	TRP	39	42.138	62.127	15.246	1.00	2.00	lite	0
ATOM	284	CB	TRP	39	41.518	62.417	16.587	1.00	2.00	lite	0
ATOM	285	CG	TRP	39	42.458	63.108	17.531	1.00	2.00	lite	0
ATOM	286	CD2	TRP	39	43.339	62.522	18.381	1.00	2.00	lite	0
ATOM	287	CE2	TRP	39	43.897	63.602	18.987	1.00	2.00	lite	0
ATOM	288	CE3	TRP	39	43.739	61.264	18.727	1.00	2.00	lite	0
ATOM	289	CD1	TRP	39	42.472	64.455	17.606	1.00	2.00	lite	0
ATOM	290	NE1	TRP	39	43.374	64.729	18.511	1.00	2.00	lite	0
ATOM	291	CZ2	TRP	39	44.848	63.479	19.949	1.00	2.00	lite	0
ATOM	292	CZ3	TRP	39	44.701	61.132	19.699	1.00	2.00	lite	0
ATOM	293	CH2	TRP	39	45.259	62.225	20.314	1.00	2.00	lite	0
ATOM	294	C	TRP	39	41.147	61.242	14.515	1.00	2.00	lite	0
ATOM	295	O	TRP	39	40.201	61.740	13.918	1.00	2.00	lite	0
ATOM	296	N	TYR	40	41.244	59.942	14.600	1.00	2.00	lite	0
ATOM	297	CA	TYR	40	40.393	59.030	13.918	1.00	2.00	lite	0
ATOM	298	CB	TYR	40	41.180	58.332	12.887	1.00	2.00	lite	0
ATOM	299	CG	TYR	40	41.537	59.132	11.665	1.00	2.00	lite	0
ATOM	300	CD1	TYR	40	42.667	59.889	11.639	1.00	2.00	lite	0
ATOM	301	CE1	TYR	40	42.965	60.616	10.512	1.00	2.00	lite	0
ATOM	302	CD2	TYR	40	40.705	59.108	10.557	1.00	2.00	lite	0
ATOM	303	CE2	TYR	40	40.996	59.825	9.429	1.00	2.00	lite	0
ATOM	304	CZ	TYR	40	42.121	60.559	9.457	1.00	2.00	lite	0
ATOM	305	OH	TYR	40	42.417	61.271	8.349	1.00	2.00	lite	0
ATOM	306	C	TYR	40	39.943	58.021	14.948	1.00	2.00	lite	0
ATOM	307	O	TYR	40	40.636	57.798	15.954	1.00	2.00	lite	0
ATOM	308	N	GLN	41	38.863	57.300	14.710	1.00	2.00	lite	0
ATOM	309	CA	GLN	41	38.410	56.269	15.633	1.00	2.00	lite	0
ATOM	310	CB	GLN	41	37.059	56.603	16.252	1.00	25.22	lite	0
ATOM	311	CG	GLN	41	36.501	55.573	17.202	1.00	25.22	lite	0
ATOM	312	CD	GLN	41	35.044	55.797	17.529	1.00	25.22	lite	0
ATOM	313	OE1	GLN	41	34.187	55.853	16.649	1.00	25.22	lite	0
ATOM	314	NE2	GLN	41	34.717	55.916	18.807	1.00	25.22	lite	0
ATOM	315	C	GLN	41	38.234	55.035	14.785	1.00	2.00	lite	0
ATOM	316	O	GLN	41	37.773	55.164	13.652	1.00	25.22	lite	0
ATOM	317	N	GLN	42	38.559	53.831	15.249	1.00	2.00	lite	0
ATOM	318	CA	GLN	42	38.359	52.662	14.427	1.00	2.00	lite	0
ATOM	319	CB	GLN	42	39.667	52.162	13.873	1.00	2.00	lite	0
ATOM	320	CG	GLN	42	39.421	51.011	12.970	1.00	2.00	lite	0
ATOM	321	CD	GLN	42	40.671	50.450	12.369	1.00	2.00	lite	0
ATOM	322	OE1	GLN	42	41.799	50.661	12.778	1.00	2.00	lite	0
ATOM	323	NE2	GLN	42	40.556	49.652	11.360	1.00	2.00	lite	0
ATOM	324	C	GLN	42	37.777	51.656	15.354	1.00	2.00	lite	0
ATOM	325	O	GLN	42	38.459	51.163	16.267	1.00	2.00	lite	0
ATOM	326	N	LYS	43	36.455	51.495	15.201	1.00	2.00	lite	0
ATOM	327	CA	LYS	43	35.740	50.409	15.881	1.00	2.00	lite	0
ATOM	328	CB	LYS	43	34.233	50.496	15.698	1.00	38.63	lite	0
ATOM	329	CG	LYS	43	33.603	51.184	16.875	1.00	38.63	lite	0
ATOM	330	CD	LYS	43	33.003	52.500	16.453	1.00	38.63	lite	0
ATOM	331	CE	LYS	43	31.550	52.387	16.927	1.00	38.63	lite	0
ATOM	332	NZ	LYS	43	30.682	53.402	16.349	1.00	38.63	lite	0
ATOM	333	C	LYS	43	36.246	49.183	15.171	1.00	2.00	lite	0

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ATOM	334	O	LYS	43	36.670	49.285	14.021	1.00	38.63	lite	0
ATOM	335	N	PRO	44	36.304	48.009	15.719	1.00	39.18	lite	0
ATOM	336	CD	PRO	44	35.583	47.622	16.909	1.00	39.31	lite	0
ATOM	337	CA	PRO	44	36.928	46.885	15.056	1.00	39.18	lite	0
ATOM	338	CB	PRO	44	36.828	45.851	16.129	1.00	39.31	lite	0
ATOM	339	CG	PRO	44	35.479	46.132	16.735	1.00	39.31	lite	0
ATOM	340	C	PRO	44	36.290	46.515	13.709	1.00	39.18	lite	0
ATOM	341	O	PRO	44	35.065	46.541	13.563	1.00	39.31	lite	0
ATOM	342	N	GLY	45	37.144	46.233	12.716	1.00	50.31	lite	0
ATOM	343	CA	GLY	45	36.710	45.835	11.382	1.00	50.31	lite	0
ATOM	344	C	GLY	45	35.811	46.898	10.774	1.00	50.31	lite	0
ATOM	345	O	GLY	45	34.742	46.649	10.267	1.00	2.00	lite	0
ATOM	346	N	GLN	46	36.145	48.135	11.020	1.00	2.00	lite	0
ATOM	347	CA	GLN	46	35.538	49.295	10.428	1.00	2.00	lite	0
ATOM	348	CB	GLN	46	34.813	50.206	11.458	1.00	59.66	lite	0
ATOM	349	CG	GLN	46	33.295	50.275	11.363	1.00	59.66	lite	0
ATOM	350	CD	GLN	46	32.796	48.897	10.976	1.00	59.66	lite	0
ATOM	351	OE1	GLN	46	32.283	48.656	9.873	1.00	59.66	lite	0
ATOM	352	NE2	GLN	46	33.050	47.936	11.854	1.00	59.66	lite	0
ATOM	353	C	GLN	46	36.799	50.005	9.961	1.00	2.00	lite	0
ATOM	354	O	GLN	46	37.866	49.924	10.589	1.00	59.66	lite	0
ATOM	355	N	PRO	47	36.758	50.692	8.848	1.00	2.00	lite	0
ATOM	356	CD	PRO	47	35.802	50.434	7.780	1.00	24.53	lite	0
ATOM	357	CA	PRO	47	37.735	51.716	8.523	1.00	2.00	lite	0
ATOM	358	CB	PRO	47	37.293	52.209	7.185	1.00	24.53	lite	0
ATOM	359	CG	PRO	47	35.834	51.781	7.099	1.00	24.53	lite	0
ATOM	360	C	PRO	47	37.747	52.778	9.581	1.00	2.00	lite	0
ATOM	361	O	PRO	47	36.724	53.006	10.231	1.00	24.53	lite	0
ATOM	362	N	PRO	48	38.879	53.433	9.794	1.00	2.00	lite	0
ATOM	363	CD	PRO	48	40.084	53.315	9.010	1.00	15.58	lite	0
ATOM	364	CA	PRO	48	38.962	54.565	10.690	1.00	2.00	lite	0
ATOM	365	CB	PRO	48	40.339	55.083	10.470	1.00	15.58	lite	0
ATOM	366	CG	PRO	48	41.102	53.915	9.921	1.00	15.58	lite	0
ATOM	367	C	PRO	48	37.865	55.536	10.271	1.00	2.00	lite	0
ATOM	368	O	PRO	48	37.483	55.535	9.095	1.00	15.58	lite	0
ATOM	369	N	LYS	49	37.308	56.287	11.215	1.00	2.00	lite	0
ATOM	370	CA	LYS	49	36.316	57.349	11.056	1.00	2.00	lite	0
ATOM	371	CB	LYS	49	35.119	57.179	11.988	1.00	33.11	lite	0
ATOM	372	CG	LYS	49	34.021	58.261	11.899	1.00	33.11	lite	0
ATOM	373	CD	LYS	49	32.987	58.289	13.041	1.00	33.11	lite	0
ATOM	374	CE	LYS	49	32.478	56.875	13.340	1.00	33.11	lite	0
ATOM	375	NZ	LYS	49	31.654	56.916	14.522	1.00	33.11	lite	0
ATOM	376	C	LYS	49	37.062	58.594	11.519	1.00	2.00	lite	0
ATOM	377	O	LYS	49	37.833	58.602	12.490	1.00	33.11	lite	0
ATOM	378	N	VAL	50	36.872	59.687	10.822	1.00	18.48	lite	0
ATOM	379	CA	VAL	50	37.417	60.932	11.327	1.00	18.48	lite	0
ATOM	380	CB	VAL	50	37.287	62.043	10.377	1.00	18.11	lite	0
ATOM	381	CG1	VAL	50	38.433	62.977	10.724	1.00	18.11	lite	0
ATOM	382	CG2	VAL	50	37.214	61.546	8.930	1.00	18.11	lite	0
ATOM	383	C	VAL	50	36.592	61.319	12.529	1.00	18.48	lite	0
ATOM	384	O	VAL	50	35.400	61.031	12.606	1.00	18.11	lite	0
ATOM	385	N	LEU	51	37.240	61.910	13.500	1.00	2.00	lite	0
ATOM	386	CA	LEU	51	36.488	62.376	14.647	1.00	2.00	lite	0
ATOM	387	CB	LEU	51	36.969	61.978	16.020	1.00	18.58	lite	0
ATOM	388	CG	LEU	51	36.719	60.597	16.466	1.00	18.58	lite	0
ATOM	389	CD1	LEU	51	36.929	60.535	17.949	1.00	18.58	lite	0
ATOM	390	CD2	LEU	51	35.322	60.209	16.126	1.00	18.58	lite	0
ATOM	391	C	LEU	51	36.684	63.827	14.643	1.00	2.00	lite	0
ATOM	392	O	LEU	51	35.696	64.533	14.593	1.00	18.58	lite	0
ATOM	393	N	ILE	52	37.941	64.243	14.678	1.00	27.51	lite	0
ATOM	394	CA	ILE	52	38.316	65.642	14.791	1.00	27.51	lite	0
ATOM	395	CB	ILE	52	38.792	65.896	16.249	1.00	23.51	lite	0
ATOM	396	CG2	ILE	52	39.441	67.269	16.396	1.00	23.51	lite	0
ATOM	397	CG1	ILE	52	37.572	65.744	17.172	1.00	23.51	lite	0
ATOM	398	CD1	ILE	52	37.958	65.562	18.645	1.00	23.51	lite	0
ATOM	399	C	ILE	52	39.397	65.987	13.790	1.00	27.51	lite	0
ATOM	400	O	ILE	52	40.390	65.277	13.641	1.00	23.51	lite	0

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ATOM	401	N	TYR	53	39.204	67.053	13.051	1.00	17.96	lite	0
ATOM	402	CA	TYR	53	40.192	67.475	12.109	1.00	17.96	lite	0
ATOM	403	CB	TYR	53	39.621	67.454	10.755	1.00	28.13	lite	0
ATOM	404	CG	TYR	53	38.424	68.350	10.565	1.00	28.13	lite	0
ATOM	405	CD1	TYR	53	37.164	67.837	10.806	1.00	28.13	lite	0
ATOM	406	CE1	TYR	53	36.041	68.587	10.578	1.00	28.13	lite	0
ATOM	407	CD2	TYR	53	38.611	69.627	10.101	1.00	28.13	lite	0
ATOM	408	CE2	TYR	53	37.494	70.385	9.867	1.00	28.13	lite	0
ATOM	409	CZ	TYR	53	36.229	69.865	10.107	1.00	28.13	lite	0
ATOM	410	OH	TYR	53	35.118	70.655	9.875	1.00	28.13	lite	0
ATOM	411	C	TYR	53	40.645	68.853	12.477	1.00	17.96	lite	0
ATOM	412	O	TYR	53	40.036	69.595	13.236	1.00	28.13	lite	0
ATOM	413	N	ILE	54	41.764	69.102	11.823	1.00	2.00	lite	0
ATOM	414	CA	ILE	54	42.636	70.243	12.074	1.00	2.00	lite	0
ATOM	415	CB	ILE	54	42.230	71.355	11.149	1.00	28.65	lite	0
ATOM	416	CG2	ILE	54	43.161	72.533	11.340	1.00	28.65	lite	0
ATOM	417	CG1	ILE	54	42.356	70.859	9.723	1.00	28.65	lite	0
ATOM	418	CD1	ILE	54	41.759	71.633	8.558	1.00	28.65	lite	0
ATOM	419	C	ILE	54	42.646	70.703	13.524	1.00	2.00	lite	0
ATOM	420	O	ILE	54	42.238	71.798	13.937	1.00	28.65	lite	0
ATOM	421	N	ALA	55	43.063	69.677	14.275	1.00	2.00	lite	0
ATOM	422	CA	ALA	55	43.294	69.766	15.690	1.00	2.00	lite	0
ATOM	423	CB	ALA	55	44.344	70.843	15.967	1.00	11.47	lite	0
ATOM	424	C	ALA	55	42.091	70.041	16.574	1.00	2.00	lite	0
ATOM	425	O	ALA	55	41.941	69.354	17.587	1.00	11.47	lite	0
ATOM	426	N	SER	56	41.178	70.960	16.301	1.00	2.00	lite	0
ATOM	427	CA	SER	56	40.095	71.299	17.222	1.00	2.00	lite	0
ATOM	428	CB	SER	56	40.365	72.755	17.581	1.00	40.53	lite	0
ATOM	429	OG	SER	56	40.942	73.521	16.506	1.00	40.53	lite	0
ATOM	430	C	SER	56	38.684	71.055	16.650	1.00	2.00	lite	0
ATOM	431	O	SER	56	37.670	70.843	17.339	1.00	40.53	lite	0
ATOM	432	N	ASN	57	38.599	71.054	15.326	1.00	2.00	lite	0
ATOM	433	CA	ASN	57	37.323	71.006	14.653	1.00	2.00	lite	0
ATOM	434	CB	ASN	57	37.421	71.443	13.233	1.00	47.28	lite	0
ATOM	435	CG	ASN	57	37.695	72.907	13.324	1.00	47.28	lite	0
ATOM	436	OD1	ASN	57	38.840	73.368	13.272	1.00	47.28	lite	0
ATOM	437	ND2	ASN	57	36.622	73.650	13.584	1.00	47.28	lite	0
ATOM	438	C	ASN	57	36.685	69.688	14.622	1.00	2.00	lite	0
ATOM	439	O	ASN	57	37.265	68.725	14.136	1.00	47.28	lite	0
ATOM	440	N	LEU	58	35.444	69.713	15.051	1.00	24.64	lite	0
ATOM	441	CA	LEU	58	34.666	68.507	15.095	1.00	24.64	lite	0
ATOM	442	CB	LEU	58	33.708	68.689	16.201	1.00	21.23	lite	0
ATOM	443	CG	LEU	58	33.519	67.531	17.105	1.00	21.23	lite	0
ATOM	444	CD1	LEU	58	32.773	67.885	18.388	1.00	21.23	lite	0
ATOM	445	CD2	LEU	58	32.755	66.534	16.305	1.00	21.23	lite	0
ATOM	446	C	LEU	58	33.953	68.153	13.806	1.00	24.64	lite	0
ATOM	447	O	LEU	58	33.280	68.993	13.199	1.00	21.23	lite	0
ATOM	448	N	GLU	59	34.097	66.894	13.392	1.00	43.23	lite	0
ATOM	449	CA	GLU	59	33.406	66.399	12.214	1.00	43.23	lite	0
ATOM	450	CB	GLU	59	33.898	65.021	11.737	1.00	69.91	lite	0
ATOM	451	CG	GLU	59	33.265	64.584	10.406	1.00	69.91	lite	0
ATOM	452	CD	GLU	59	33.583	65.466	9.189	1.00	69.91	lite	0
ATOM	453	OE1	GLU	59	33.109	66.602	9.059	1.00	69.91	lite	0
ATOM	454	OE2	GLU	59	34.317	64.987	8.334	1.00	69.91	lite	0
ATOM	455	C	GLU	59	31.934	66.240	12.545	1.00	43.23	lite	0
ATOM	456	O	GLU	59	31.505	65.896	13.650	1.00	69.91	lite	0
ATOM	457	N	SER	60	31.143	66.539	11.538	1.00	64.17	lite	0
ATOM	458	CA	SER	60	29.726	66.343	11.620	1.00	64.17	lite	0
ATOM	459	CB	SER	60	29.133	66.503	10.251	1.00	80.49	lite	0
ATOM	460	OG	SER	60	27.721	66.323	10.306	1.00	80.49	lite	0
ATOM	461	C	SER	60	29.380	64.970	12.159	1.00	64.17	lite	0
ATOM	462	O	SER	60	30.044	63.960	11.947	1.00	80.49	lite	0
ATOM	463	N	GLY	61	28.356	65.022	12.967	1.00	53.33	lite	0
ATOM	464	CA	GLY	61	27.857	63.823	13.548	1.00	53.33	lite	0
ATOM	465	C	GLY	61	28.625	63.483	14.804	1.00	53.33	lite	0
ATOM	466	O	GLY	61	27.960	63.097	15.772	1.00	51.50	lite	0
ATOM	467	N	VAL	62	29.957	63.618	14.879	1.00	2.00	lite	0

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ATOM	468	CA	VAL	62	30.644	63.206	16.091	1.00	2.00	lite	0
ATOM	469	CB	VAL	62	32.166	63.385	15.891	1.00	23.21	lite	0
ATOM	470	CG1	VAL	62	32.850	62.868	17.155	1.00	23.21	lite	0
ATOM	471	CG2	VAL	62	32.674	62.671	14.650	1.00	23.21	lite	0
ATOM	472	C	VAL	62	30.094	64.046	17.276	1.00	2.00	lite	0
ATOM	473	O	VAL	62	29.870	65.262	17.199	1.00	23.21	lite	0
ATOM	474	N	PRO	63	29.682	63.374	18.357	1.00	22.79	lite	0
ATOM	475	CD	PRO	63	29.570	61.918	18.434	1.00	50.44	lite	0
ATOM	476	CA	PRO	63	28.953	63.993	19.459	1.00	22.79	lite	0
ATOM	477	CB	PRO	63	28.434	62.839	20.279	1.00	50.44	lite	0
ATOM	478	CG	PRO	63	28.291	61.741	19.248	1.00	50.44	lite	0
ATOM	479	C	PRO	63	29.778	64.943	20.289	1.00	22.79	lite	0
ATOM	480	O	PRO	63	30.979	64.780	20.437	1.00	50.44	lite	0
ATOM	481	N	ALA	64	29.086	65.836	20.979	1.00	51.93	lite	0
ATOM	482	CA	ALA	64	29.613	66.864	21.891	1.00	51.93	lite	0
ATOM	483	CB	ALA	64	28.482	67.288	22.815	1.00	39.38	lite	0
ATOM	484	C	ALA	64	30.827	66.641	22.791	1.00	51.93	lite	0
ATOM	485	O	ALA	64	31.610	67.519	23.202	1.00	39.38	lite	0
ATOM	486	N	ARG	65	30.775	65.368	23.143	1.00	29.94	lite	0
ATOM	487	CA	ARG	65	31.702	64.830	24.066	1.00	29.94	lite	0
ATOM	488	CB	ARG	65	31.039	63.699	24.740	1.00	23.72	lite	0
ATOM	489	CG	ARG	65	30.521	62.714	23.758	1.00	23.72	lite	0
ATOM	490	CD	ARG	65	29.943	61.632	24.617	1.00	23.72	lite	0
ATOM	491	NE	ARG	65	29.320	60.693	23.735	1.00	23.72	lite	0
ATOM	492	CZ	ARG	65	29.984	59.640	23.295	1.00	23.72	lite	0
ATOM	493	NH1	ARG	65	31.220	59.391	23.642	1.00	23.72	lite	0
ATOM	494	NH2	ARG	65	29.402	58.828	22.451	1.00	23.72	lite	0
ATOM	495	C	ARG	65	33.027	64.403	23.495	1.00	29.94	lite	0
ATOM	496	O	ARG	65	33.686	63.514	24.086	1.00	23.72	lite	0
ATOM	497	N	PHE	66	33.403	64.990	22.355	1.00	2.00	lite	0
ATOM	498	CA	PHE	66	34.738	64.747	21.873	1.00	2.00	lite	0
ATOM	499	CB	PHE	66	34.631	64.133	20.502	1.00	15.70	lite	0
ATOM	500	CG	PHE	66	34.375	62.654	20.669	1.00	15.70	lite	0
ATOM	501	CD1	PHE	66	33.129	62.151	20.464	1.00	15.70	lite	0
ATOM	502	CD2	PHE	66	35.406	61.816	21.026	1.00	15.70	lite	0
ATOM	503	CE1	PHE	66	32.940	60.802	20.627	1.00	15.70	lite	0
ATOM	504	CE2	PHE	66	35.185	60.460	21.181	1.00	15.70	lite	0
ATOM	505	CZ	PHE	66	33.949	59.936	20.979	1.00	15.70	lite	0
ATOM	506	C	PHE	66	35.486	66.056	21.867	1.00	2.00	lite	0
ATOM	507	O	PHE	66	35.019	66.983	21.210	1.00	15.70	lite	0
ATOM	508	N	SER	67	36.598	66.241	22.548	1.00	2.00	lite	0
ATOM	509	CA	SER	67	37.232	67.529	22.426	1.00	2.00	lite	0
ATOM	510	CB	SER	67	37.095	68.210	23.742	1.00	46.68	lite	0
ATOM	511	OG	SER	67	35.698	68.278	23.933	1.00	46.68	lite	0
ATOM	512	C	SER	67	38.688	67.528	21.952	1.00	2.00	lite	0
ATOM	513	O	SER	67	39.610	66.871	22.474	1.00	46.68	lite	0
ATOM	514	N	GLY	68	38.818	68.251	20.849	1.00	14.71	lite	0
ATOM	515	CA	GLY	68	40.093	68.349	20.233	1.00	14.71	lite	0
ATOM	516	C	GLY	68	40.785	69.560	20.762	1.00	14.71	lite	0
ATOM	517	O	GLY	68	40.251	70.650	20.645	1.00	54.23	lite	0
ATOM	518	N	SER	69	41.964	69.414	21.319	1.00	2.00	lite	0
ATOM	519	CA	SER	69	42.765	70.527	21.777	1.00	2.00	lite	0
ATOM	520	CB	SER	69	42.640	70.566	23.274	1.00	66.45	lite	0
ATOM	521	OG	SER	69	43.110	69.343	23.862	1.00	66.45	lite	0
ATOM	522	C	SER	69	44.235	70.387	21.373	1.00	2.00	lite	0
ATOM	523	O	SER	69	44.720	69.312	21.014	1.00	66.45	lite	0
ATOM	524	N	GLY	70	44.964	71.459	21.639	1.00	2.00	lite	0
ATOM	525	CA	GLY	70	46.398	71.525	21.519	1.00	2.00	lite	0
ATOM	526	C	GLY	70	46.822	72.185	20.226	1.00	2.00	lite	0
ATOM	527	O	GLY	70	45.972	72.485	19.366	1.00	43.67	lite	0
ATOM	528	N	SER	71	48.163	72.381	20.206	1.00	38.46	lite	0
ATOM	529	CA	SER	71	48.956	72.925	19.120	1.00	38.46	lite	0
ATOM	530	CB	SER	71	48.667	74.389	19.001	1.00	46.07	lite	0
ATOM	531	OG	SER	71	47.454	74.454	18.238	1.00	46.07	lite	0
ATOM	532	C	SER	71	50.471	72.712	19.171	1.00	38.46	lite	0
ATOM	533	O	SER	71	51.093	72.309	20.168	1.00	46.07	lite	0
ATOM	534	N	ARG	72	51.037	72.963	17.971	1.00	29.86	lite	0

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ATOM	535	CA	ARG	72	52.444	72.777	17.589	1.00	29.86	lite	0
ATOM	536	CB	ARG	72	53.374	73.636	18.477	1.00	90.52	lite	0
ATOM	537	CG	ARG	72	53.936	74.860	17.753	1.00	90.52	lite	0
ATOM	538	CD	ARG	72	55.111	75.453	18.539	1.00	90.52	lite	0
ATOM	539	NE	ARG	72	55.961	76.349	17.744	1.00	90.52	lite	0
ATOM	540	CZ	ARG	72	57.218	76.035	17.328	1.00	90.52	lite	0
ATOM	541	NH1	ARG	72	57.814	74.864	17.596	1.00	90.52	lite	0
ATOM	542	NH2	ARG	72	57.939	76.929	16.637	1.00	90.52	lite	0
ATOM	543	C	ARG	72	52.913	71.321	17.621	1.00	29.86	lite	0
ATOM	544	O	ARG	72	53.019	70.700	16.561	1.00	90.52	lite	0
ATOM	545	N	THR	73	53.116	70.798	18.814	1.00	16.10	lite	0
ATOM	546	CA	THR	73	53.644	69.464	19.044	1.00	16.10	lite	0
ATOM	547	CB	THR	73	55.063	69.544	19.581	1.00	30.32	lite	0
ATOM	548	OG1	THR	73	55.107	70.702	20.419	1.00	30.32	lite	0
ATOM	549	CG2	THR	73	56.096	69.623	18.503	1.00	30.32	lite	0
ATOM	550	C	THR	73	52.818	68.685	20.073	1.00	16.10	lite	0
ATOM	551	O	THR	73	53.059	67.496	20.287	1.00	30.32	lite	0
ATOM	552	N	ASP	74	51.843	69.360	20.719	1.00	18.56	lite	0
ATOM	553	CA	ASP	74	51.100	68.837	21.842	1.00	18.56	lite	0
ATOM	554	CB	ASP	74	51.381	69.666	23.023	1.00	35.28	lite	0
ATOM	555	CG	ASP	74	51.277	68.771	24.221	1.00	35.28	lite	0
ATOM	556	OD1	ASP	74	50.364	68.920	25.050	1.00	35.28	lite	0
ATOM	557	OD2	ASP	74	52.152	67.912	24.277	1.00	35.28	lite	0
ATOM	558	C	ASP	74	49.621	68.814	21.645	1.00	18.56	lite	0
ATOM	559	O	ASP	74	49.025	69.877	21.607	1.00	35.28	lite	0
ATOM	560	N	PHE	75	49.008	67.649	21.565	1.00	18.58	lite	0
ATOM	561	CA	PHE	75	47.617	67.543	21.186	1.00	18.58	lite	0
ATOM	562	CB	PHE	75	47.533	67.085	19.753	1.00	16.63	lite	0
ATOM	563	CG	PHE	75	48.153	68.047	18.763	1.00	16.63	lite	0
ATOM	564	CD1	PHE	75	49.514	68.015	18.502	1.00	16.63	lite	0
ATOM	565	CD2	PHE	75	47.375	68.983	18.134	1.00	16.63	lite	0
ATOM	566	CE1	PHE	75	50.104	68.914	17.624	1.00	16.63	lite	0
ATOM	567	CE2	PHE	75	47.976	69.876	17.259	1.00	16.63	lite	0
ATOM	568	CZ	PHE	75	49.330	69.852	16.996	1.00	16.63	lite	0
ATOM	569	C	PHE	75	46.819	66.582	22.042	1.00	18.58	lite	0
ATOM	570	O	PHE	75	47.370	65.509	22.299	1.00	16.63	lite	0
ATOM	571	N	THR	76	45.545	66.871	22.402	1.00	2.00	lite	0
ATOM	572	CA	THR	76	44.779	66.060	23.351	1.00	2.00	lite	0
ATOM	573	CB	THR	76	44.810	66.830	24.683	1.00	27.98	lite	0
ATOM	574	OG1	THR	76	46.168	67.054	25.061	1.00	27.98	lite	0
ATOM	575	CG2	THR	76	44.109	66.080	25.757	1.00	27.98	lite	0
ATOM	576	C	THR	76	43.353	65.730	22.940	1.00	2.00	lite	0
ATOM	577	O	THR	76	42.569	66.635	22.683	1.00	27.98	lite	0
ATOM	578	N	LEU	77	42.964	64.481	22.781	1.00	2.00	lite	0
ATOM	579	CA	LEU	77	41.566	64.138	22.502	1.00	2.00	lite	0
ATOM	580	CB	LEU	77	41.373	62.894	21.671	1.00	18.67	lite	0
ATOM	581	CG	LEU	77	39.990	62.261	21.513	1.00	18.67	lite	0
ATOM	582	CD1	LEU	77	39.169	62.877	20.383	1.00	18.67	lite	0
ATOM	583	CD2	LEU	77	40.193	60.839	21.044	1.00	18.67	lite	0
ATOM	584	C	LEU	77	41.120	63.791	23.884	1.00	2.00	lite	0
ATOM	585	O	LEU	77	41.835	63.122	24.647	1.00	18.67	lite	0
ATOM	586	N	THR	78	39.892	64.193	24.140	1.00	17.32	lite	0
ATOM	587	CA	THR	78	39.297	64.074	25.452	1.00	17.32	lite	0
ATOM	588	CB	THR	78	39.329	65.487	26.081	1.00	51.42	lite	0
ATOM	589	OG1	THR	78	40.145	66.441	25.363	1.00	51.42	lite	0
ATOM	590	CG2	THR	78	39.959	65.337	27.424	1.00	51.42	lite	0
ATOM	591	C	THR	78	37.886	63.543	25.195	1.00	17.32	lite	0
ATOM	592	O	THR	78	37.142	64.060	24.344	1.00	51.42	lite	0
ATOM	593	N	ILE	79	37.444	62.472	25.798	1.00	2.00	lite	0
ATOM	594	CA	ILE	79	36.115	61.988	25.520	1.00	2.00	lite	0
ATOM	595	CB	ILE	79	36.188	60.582	25.053	1.00	19.20	lite	0
ATOM	596	CG2	ILE	79	34.755	60.159	24.831	1.00	19.20	lite	0
ATOM	597	CG1	ILE	79	37.116	60.424	23.891	1.00	19.20	lite	0
ATOM	598	CD1	ILE	79	37.510	58.955	23.769	1.00	19.20	lite	0
ATOM	599	C	ILE	79	35.583	62.019	26.934	1.00	2.00	lite	0
ATOM	600	O	ILE	79	36.210	61.379	27.822	1.00	19.20	lite	0
ATOM	601	N	ASP	80	34.479	62.735	27.191	1.00	2.00	lite	0

ATOM	602	CA	ASP	80	33.894	62.803	28.537	1.00	2.00	lite	0
ATOM	603	CB	ASP	80	34.622	63.796	29.396	1.00	51.46	lite	0
ATOM	604	CG	ASP	80	33.897	64.125	30.677	1.00	51.46	lite	0
ATOM	605	OD1	ASP	80	33.534	65.283	30.823	1.00	51.46	lite	0
ATOM	606	OD2	ASP	80	33.666	63.238	31.497	1.00	51.46	lite	0
ATOM	607	C	ASP	80	32.471	63.271	28.417	1.00	2.00	lite	0
ATOM	608	O	ASP	80	32.259	64.385	27.945	1.00	51.46	lite	0
ATOM	609	N	CPR	81	31.447	62.557	28.817	1.00	2.00	lite	0
ATOM	610	CD	CPR	81	30.059	62.859	28.492	1.00	10.14	lite	0
ATOM	611	CA	CPR	81	31.505	61.263	29.410	1.00	2.00	lite	0
ATOM	612	CB	CPR	81	30.183	61.143	30.117	1.00	10.14	lite	0
ATOM	613	CG	CPR	81	29.240	61.711	29.115	1.00	10.14	lite	0
ATOM	614	C	CPR	81	31.728	60.188	28.379	1.00	2.00	lite	0
ATOM	615	O	CPR	81	31.154	60.124	27.291	1.00	10.14	lite	0
ATOM	616	N	VAL	82	32.588	59.303	28.744	1.00	2.00	lite	0
ATOM	617	CA	VAL	82	32.769	58.132	27.930	1.00	2.00	lite	0
ATOM	618	CB	VAL	82	33.903	57.301	28.518	1.00	15.97	lite	0
ATOM	619	CG1	VAL	82	34.101	55.933	27.899	1.00	15.97	lite	0
ATOM	620	CG2	VAL	82	35.129	58.174	28.287	1.00	15.97	lite	0
ATOM	621	C	VAL	82	31.459	57.370	27.984	1.00	2.00	lite	0
ATOM	622	O	VAL	82	30.763	57.481	28.996	1.00	15.97	lite	0
ATOM	623	N	GLU	83	31.071	56.707	26.896	1.00	2.00	lite	0
ATOM	624	CA	GLU	83	30.031	55.710	26.914	1.00	2.00	lite	0
ATOM	625	CB	GLU	83	28.646	56.293	26.641	1.00	35.40	lite	0
ATOM	626	CG	GLU	83	28.555	57.314	25.561	1.00	35.40	lite	0
ATOM	627	CD	GLU	83	27.265	58.147	25.626	1.00	35.40	lite	0
ATOM	628	OE1	GLU	83	26.615	58.311	24.582	1.00	35.40	lite	0
ATOM	629	OE2	GLU	83	26.906	58.651	26.699	1.00	35.40	lite	0
ATOM	630	C	GLU	83	30.336	54.639	25.899	1.00	2.00	lite	0
ATOM	631	O	GLU	83	31.279	54.680	25.117	1.00	35.40	lite	0
ATOM	632	N	ALA	84	29.476	53.648	25.980	1.00	2.00	lite	0
ATOM	633	CA	ALA	84	29.524	52.377	25.288	1.00	2.00	lite	0
ATOM	634	CB	ALA	84	28.076	51.945	25.078	1.00	55.68	lite	0
ATOM	635	C	ALA	84	30.292	52.172	23.996	1.00	2.00	lite	0
ATOM	636	O	ALA	84	31.233	51.388	23.831	1.00	55.68	lite	0
ATOM	637	N	ASP	85	29.815	53.003	23.119	1.00	2.00	lite	0
ATOM	638	CA	ASP	85	30.266	53.105	21.761	1.00	2.00	lite	0
ATOM	639	CB	ASP	85	29.379	54.194	21.188	1.00	52.80	lite	0
ATOM	640	CG	ASP	85	29.584	54.479	19.734	1.00	52.80	lite	0
ATOM	641	OD1	ASP	85	28.738	54.047	18.946	1.00	52.80	lite	0
ATOM	642	OD2	ASP	85	30.592	55.132	19.427	1.00	52.80	lite	0
ATOM	643	C	ASP	85	31.754	53.385	21.638	1.00	2.00	lite	0
ATOM	644	O	ASP	85	32.407	52.854	20.753	1.00	52.80	lite	0
ATOM	645	N	ASP	86	32.333	54.137	22.555	1.00	2.00	lite	0
ATOM	646	CA	ASP	86	33.702	54.547	22.420	1.00	2.00	lite	0
ATOM	647	CB	ASP	86	33.941	55.636	23.362	1.00	2.00	lite	0
ATOM	648	CG	ASP	86	32.839	56.644	23.263	1.00	2.00	lite	0
ATOM	649	OD1	ASP	86	32.406	57.028	24.321	1.00	2.00	lite	0
ATOM	650	OD2	ASP	86	32.362	56.997	22.176	1.00	2.00	lite	0
ATOM	651	C	ASP	86	34.744	53.488	22.610	1.00	2.00	lite	0
ATOM	652	O	ASP	86	35.941	53.773	22.492	1.00	2.00	lite	0
ATOM	653	N	ALA	87	34.299	52.274	22.930	1.00	2.00	lite	0
ATOM	654	CA	ALA	87	35.154	51.106	22.970	1.00	2.00	lite	0
ATOM	655	CB	ALA	87	34.319	49.905	23.299	1.00	27.46	lite	0
ATOM	656	C	ALA	87	35.712	50.976	21.545	1.00	2.00	lite	0
ATOM	657	O	ALA	87	35.038	50.456	20.645	1.00	27.46	lite	0
ATOM	658	N	ALA	88	36.928	51.510	21.329	1.00	2.00	lite	0
ATOM	659	CA	ALA	88	37.562	51.558	20.028	1.00	2.00	lite	0
ATOM	660	CB	ALA	88	36.831	52.580	19.176	1.00	13.15	lite	0
ATOM	661	C	ALA	88	39.054	51.943	20.064	1.00	2.00	lite	0
ATOM	662	O	ALA	88	39.567	52.324	21.120	1.00	13.15	lite	0
ATOM	663	N	THR	89	39.790	51.853	18.943	1.00	2.00	lite	0
ATOM	664	CA	THR	89	41.109	52.416	18.938	1.00	2.00	lite	0
ATOM	665	CB	THR	89	42.049	51.517	18.176	1.00	15.69	lite	0
ATOM	666	OG1	THR	89	42.203	50.317	18.891	1.00	15.69	lite	0
ATOM	667	CG2	THR	89	43.451	51.992	18.232	1.00	15.69	lite	0
ATOM	668	C	THR	89	41.048	53.798	18.318	1.00	2.00	lite	0

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ATOM	669	O	THR	89	40.210	54.063	17.464	1.00	15.69	lite	0
ATOM	670	N	TYR	90	41.870	54.702	18.825	1.00	2.00	lite	0
ATOM	671	CA	TYR	90	41.910	56.049	18.353	1.00	2.00	lite	0
ATOM	672	CB	TYR	90	41.622	56.962	19.487	1.00	2.00	lite	0
ATOM	673	CG	TYR	90	40.228	56.798	20.037	1.00	2.00	lite	0
ATOM	674	CD1	TYR	90	39.236	57.657	19.604	1.00	2.00	lite	0
ATOM	675	CE1	TYR	90	37.955	57.455	20.066	1.00	2.00	lite	0
ATOM	676	CD2	TYR	90	39.976	55.758	20.909	1.00	2.00	lite	0
ATOM	677	CE2	TYR	90	38.701	55.552	21.362	1.00	2.00	lite	0
ATOM	678	CZ	TYR	90	37.708	56.402	20.931	1.00	2.00	lite	0
ATOM	679	OH	TYR	90	36.426	56.187	21.352	1.00	2.00	lite	0
ATOM	680	C	TYR	90	43.296	56.335	17.812	1.00	2.00	lite	0
ATOM	681	O	TYR	90	44.291	55.932	18.468	1.00	2.00	lite	0
ATOM	682	N	TYR	91	43.411	56.994	16.646	1.00	7.40	lite	0
ATOM	683	CA	TYR	91	44.719	57.263	16.077	1.00	7.40	lite	0
ATOM	684	CB	TYR	91	44.918	56.700	14.721	1.00	2.00	lite	0
ATOM	685	CG	TYR	91	44.926	55.207	14.701	1.00	2.00	lite	0
ATOM	686	CD1	TYR	91	43.733	54.579	14.520	1.00	2.00	lite	0
ATOM	687	CE1	TYR	91	43.725	53.218	14.587	1.00	2.00	lite	0
ATOM	688	CD2	TYR	91	46.110	54.526	14.938	1.00	2.00	lite	0
ATOM	689	CE2	TYR	91	46.103	53.159	15.002	1.00	2.00	lite	0
ATOM	690	CZ	TYR	91	44.891	52.548	14.830	1.00	2.00	lite	0
ATOM	691	OH	TYR	91	44.825	51.194	14.892	1.00	2.00	lite	0
ATOM	692	C	TYR	91	44.881	58.721	15.854	1.00	7.40	lite	0
ATOM	693	O	TYR	91	43.883	59.347	15.539	1.00	2.00	lite	0
ATOM	694	N	CYS	92	46.014	59.331	15.975	1.00	2.00	lite	0
ATOM	695	CA	CYS	92	46.074	60.682	15.534	1.00	2.00	lite	0
ATOM	696	C	CYS	92	46.976	60.670	14.317	1.00	2.00	lite	0
ATOM	697	O	CYS	92	47.744	59.737	14.098	1.00	11.14	lite	0
ATOM	698	CB	CYS	92	46.619	61.533	16.629	1.00	11.14	lite	0
ATOM	699	SG	CYS	92	48.224	60.843	16.937	1.00	11.14	lite	0
ATOM	700	N	GLN	93	46.930	61.648	13.448	1.00	2.00	lite	0
ATOM	701	CA	GLN	93	47.672	61.568	12.216	1.00	2.00	lite	0
ATOM	702	CB	GLN	93	46.770	61.169	11.071	1.00	2.00	lite	0
ATOM	703	CG	GLN	93	47.352	61.422	9.663	1.00	2.00	lite	0
ATOM	704	CD	GLN	93	46.264	61.380	8.627	1.00	2.00	lite	0
ATOM	705	OE1	GLN	93	45.116	61.780	8.893	1.00	2.00	lite	0
ATOM	706	NE2	GLN	93	46.572	60.886	7.431	1.00	2.00	lite	0
ATOM	707	C	GLN	93	48.111	62.965	11.983	1.00	2.00	lite	0
ATOM	708	O	GLN	93	47.398	63.875	12.380	1.00	2.00	lite	0
ATOM	709	N	GLN	94	49.244	63.199	11.386	1.00	2.00	lite	0
ATOM	710	CA	GLN	94	49.563	64.533	10.972	1.00	2.00	lite	0
ATOM	711	CB	GLN	94	50.955	64.926	11.465	1.00	21.29	lite	0
ATOM	712	CG	GLN	94	52.233	64.237	11.039	1.00	21.29	lite	0
ATOM	713	CD	GLN	94	52.631	64.553	9.615	1.00	21.29	lite	0
ATOM	714	OE1	GLN	94	52.478	65.691	9.181	1.00	21.29	lite	0
ATOM	715	NE2	GLN	94	53.119	63.655	8.779	1.00	21.29	lite	0
ATOM	716	C	GLN	94	49.525	64.446	9.477	1.00	2.00	lite	0
ATOM	717	O	GLN	94	49.728	63.373	8.897	1.00	21.29	lite	0
ATOM	718	N	ASN	95	49.348	65.567	8.825	1.00	2.00	lite	0
ATOM	719	CA	ASN	95	49.385	65.534	7.385	1.00	2.00	lite	0
ATOM	720	CB	ASN	95	47.984	65.161	6.871	1.00	14.78	lite	0
ATOM	721	CG	ASN	95	47.851	64.896	5.393	1.00	14.78	lite	0
ATOM	722	OD1	ASN	95	48.797	64.849	4.634	1.00	14.78	lite	0
ATOM	723	ND2	ASN	95	46.686	64.584	4.864	1.00	14.78	lite	0
ATOM	724	C	ASN	95	49.825	66.937	7.069	1.00	2.00	lite	0
ATOM	725	O	ASN	95	49.178	67.656	6.350	1.00	14.78	lite	0
ATOM	726	N	ASN	96	50.892	67.444	7.654	1.00	2.00	lite	0
ATOM	727	CA	ASN	96	51.379	68.772	7.364	1.00	2.00	lite	0
ATOM	728	CB	ASN	96	51.740	69.405	8.662	1.00	37.18	lite	0
ATOM	729	CG	ASN	96	52.049	70.873	8.578	1.00	37.18	lite	0
ATOM	730	OD1	ASN	96	51.148	71.610	8.216	1.00	37.18	lite	0
ATOM	731	ND2	ASN	96	53.236	71.356	8.945	1.00	37.18	lite	0
ATOM	732	C	ASN	96	52.604	68.621	6.485	1.00	2.00	lite	0
ATOM	733	O	ASN	96	53.036	69.562	5.824	1.00	37.18	lite	0
ATOM	734	N	GLU	97	53.325	67.495	6.548	1.00	28.31	lite	0
ATOM	735	CA	GLU	97	54.423	67.259	5.638	1.00	28.31	lite	0

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ATOM	736	CB	GLU	97	55.687	67.942	6.101	1.00	26.37	lite	0
ATOM	737	CG	GLU	97	56.156	67.561	7.447	1.00	26.37	lite	0
ATOM	738	CD	GLU	97	57.312	68.424	7.937	1.00	26.37	lite	0
ATOM	739	OE1	GLU	97	58.423	68.163	7.468	1.00	26.37	lite	0
ATOM	740	OE2	GLU	97	57.105	69.298	8.804	1.00	26.37	lite	0
ATOM	741	C	GLU	97	54.688	65.784	5.470	1.00	28.31	lite	0
ATOM	742	O	GLU	97	54.415	64.936	6.320	1.00	26.37	lite	0
ATOM	743	N	ASP	98	55.231	65.536	4.291	1.00	8.02	lite	0
ATOM	744	CA	ASP	98	55.479	64.229	3.776	1.00	8.02	lite	0
ATOM	745	CB	ASP	98	55.680	64.401	2.311	1.00	34.38	lite	0
ATOM	746	CG	ASP	98	54.421	64.859	1.544	1.00	34.38	lite	0
ATOM	747	OD1	ASP	98	54.520	65.685	0.630	1.00	34.38	lite	0
ATOM	748	OD2	ASP	98	53.330	64.381	1.824	1.00	34.38	lite	0
ATOM	749	C	ASP	98	56.599	63.413	4.387	1.00	8.02	lite	0
ATOM	750	O	ASP	98	57.596	63.914	4.918	1.00	34.38	lite	0
ATOM	751	N	CPR	99	56.346	62.124	4.601	1.00	2.00	lite	0
ATOM	752	CD	CPR	99	57.328	61.123	4.941	1.00	2.00	lite	0
ATOM	753	CA	CPR	99	55.080	61.481	4.338	1.00	2.00	lite	0
ATOM	754	CB	CPR	99	55.352	60.032	4.242	1.00	2.00	lite	0
ATOM	755	CG	CPR	99	56.480	59.890	5.187	1.00	2.00	lite	0
ATOM	756	C	CPR	99	54.262	61.842	5.559	1.00	2.00	lite	0
ATOM	757	O	CPR	99	54.801	62.219	6.620	1.00	2.00	lite	0
ATOM	758	N	PRO	100	52.979	61.855	5.346	1.00	2.00	lite	0
ATOM	759	CD	PRO	100	52.368	61.706	4.024	1.00	14.88	lite	0
ATOM	760	CA	PRO	100	52.034	61.880	6.414	1.00	2.00	lite	0
ATOM	761	CB	PRO	100	50.751	61.891	5.654	1.00	14.88	lite	0
ATOM	762	CG	PRO	100	51.043	61.154	4.369	1.00	14.88	lite	0
ATOM	763	C	PRO	100	52.295	60.663	7.328	1.00	2.00	lite	0
ATOM	764	O	PRO	100	52.922	59.676	6.912	1.00	14.88	lite	0
ATOM	765	N	THR	101	51.880	60.697	8.612	1.00	2.00	lite	0
ATOM	766	CA	THR	101	52.210	59.675	9.600	1.00	2.00	lite	0
ATOM	767	CB	THR	101	53.504	60.086	10.365	1.00	2.00	lite	0
ATOM	768	OG1	THR	101	53.214	61.342	10.890	1.00	2.00	lite	0
ATOM	769	CG2	THR	101	54.752	60.306	9.562	1.00	2.00	lite	0
ATOM	770	C	THR	101	51.047	59.544	10.571	1.00	2.00	lite	0
ATOM	771	O	THR	101	50.284	60.506	10.732	1.00	2.00	lite	0
ATOM	772	N	PHE	102	50.887	58.370	11.192	1.00	2.00	lite	0
ATOM	773	CA	PHE	102	49.818	58.058	12.138	1.00	2.00	lite	0
ATOM	774	CB	PHE	102	49.091	56.801	11.747	1.00	2.00	lite	0
ATOM	775	CG	PHE	102	48.069	56.899	10.602	1.00	2.00	lite	0
ATOM	776	CD1	PHE	102	48.358	56.397	9.343	1.00	2.00	lite	0
ATOM	777	CD2	PHE	102	46.854	57.550	10.789	1.00	2.00	lite	0
ATOM	778	CE1	PHE	102	47.447	56.544	8.311	1.00	2.00	lite	0
ATOM	779	CE2	PHE	102	45.957	57.686	9.751	1.00	2.00	lite	0
ATOM	780	CZ	PHE	102	46.243	57.201	8.503	1.00	2.00	lite	0
ATOM	781	C	PHE	102	50.386	57.799	13.522	1.00	2.00	lite	0
ATOM	782	O	PHE	102	51.572	57.482	13.698	1.00	2.00	lite	0
ATOM	783	N	GLY	103	49.606	57.940	14.570	1.00	18.15	lite	0
ATOM	784	CA	GLY	103	50.046	57.488	15.857	1.00	18.15	lite	0
ATOM	785	C	GLY	103	49.863	55.964	15.821	1.00	18.15	lite	0
ATOM	786	O	GLY	103	49.199	55.337	14.968	1.00	13.33	lite	0
ATOM	787	N	ALA	104	50.444	55.344	16.844	1.00	2.00	lite	0
ATOM	788	CA	ALA	104	50.331	53.907	17.017	1.00	2.00	lite	0
ATOM	789	CB	ALA	104	51.407	53.573	17.974	1.00	13.82	lite	0
ATOM	790	C	ALA	104	48.966	53.389	17.473	1.00	2.00	lite	0
ATOM	791	O	ALA	104	48.706	52.185	17.473	1.00	13.82	lite	0
ATOM	792	N	GLY	105	48.038	54.277	17.800	1.00	2.00	lite	0
ATOM	793	CA	GLY	105	46.742	53.864	18.306	1.00	2.00	lite	0
ATOM	794	C	GLY	105	46.697	53.725	19.793	1.00	2.00	lite	0
ATOM	795	O	GLY	105	47.725	53.413	20.376	1.00	19.99	lite	0
ATOM	796	N	THR	106	45.554	54.036	20.380	1.00	2.00	lite	0
ATOM	797	CA	THR	106	45.337	53.908	21.810	1.00	2.00	lite	0
ATOM	798	CB	THR	106	45.100	55.239	22.403	1.00	2.00	lite	0
ATOM	799	OG1	THR	106	46.285	55.947	22.171	1.00	2.00	lite	0
ATOM	800	CG2	THR	106	44.794	55.218	23.835	1.00	2.00	lite	0
ATOM	801	C	THR	106	44.060	53.120	21.841	1.00	2.00	lite	0
ATOM	802	O	THR	106	43.076	53.440	21.170	1.00	2.00	lite	0

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ATOM	803	N	LYS	107	44.057	52.012	22.526	1.00	2.00	lite	0
ATOM	804	CA	LYS	107	42.865	51.216	22.575	1.00	2.00	lite	0
ATOM	805	CB	LYS	107	43.232	49.732	22.733	1.00	50.71	lite	0
ATOM	806	CG	LYS	107	42.041	48.790	22.973	1.00	50.71	lite	0
ATOM	807	CD	LYS	107	42.451	47.347	23.324	1.00	50.71	lite	0
ATOM	808	CE	LYS	107	41.310	46.371	23.751	1.00	50.71	lite	0
ATOM	809	NZ	LYS	107	40.876	46.465	25.159	1.00	50.71	lite	0
ATOM	810	C	LYS	107	42.094	51.710	23.775	1.00	2.00	lite	0
ATOM	811	O	LYS	107	42.686	51.748	24.851	1.00	50.71	lite	0
ATOM	812	N	LEU	108	40.843	52.146	23.644	1.00	17.43	lite	0
ATOM	813	CA	LEU	108	39.993	52.417	24.803	1.00	17.43	lite	0
ATOM	814	CB	LEU	108	39.063	53.613	24.529	1.00	7.09	lite	0
ATOM	815	CG	LEU	108	38.084	54.019	25.623	1.00	7.09	lite	0
ATOM	816	CD1	LEU	108	38.760	54.328	26.872	1.00	7.09	lite	0
ATOM	817	CD2	LEU	108	37.422	55.292	25.259	1.00	7.09	lite	0
ATOM	818	C	LEU	108	39.145	51.196	25.162	1.00	17.43	lite	0
ATOM	819	O	LEU	108	38.376	50.737	24.318	1.00	7.09	lite	0
ATOM	820	N	GLU	109	39.246	50.566	26.313	1.00	2.00	lite	0
ATOM	821	CA	GLU	109	38.317	49.518	26.652	1.00	2.00	lite	0
ATOM	822	CB	GLU	109	38.996	48.161	26.947	1.00	35.61	lite	0
ATOM	823	CG	GLU	109	39.428	47.571	28.293	1.00	35.61	lite	0
ATOM	824	CD	GLU	109	38.430	46.638	29.051	1.00	35.61	lite	0
ATOM	825	OE1	GLU	109	37.239	46.979	29.113	1.00	35.61	lite	0
ATOM	826	OE2	GLU	109	38.832	45.579	29.590	1.00	35.61	lite	0
ATOM	827	C	GLU	109	37.757	50.139	27.859	1.00	2.00	lite	0
ATOM	828	O	GLU	109	38.344	50.950	28.596	1.00	35.61	lite	0
ATOM	829	N	MET	110	36.518	49.766	28.032	1.00	2.00	lite	0
ATOM	830	CA	MET	110	35.811	50.496	29.054	1.00	2.00	lite	0
ATOM	831	CB	MET	110	35.211	51.617	28.228	1.00	41.86	lite	0
ATOM	832	CG	MET	110	34.305	51.195	27.154	1.00	41.86	lite	0
ATOM	833	SD	MET	110	32.976	51.036	28.322	1.00	41.86	lite	0
ATOM	834	CE	MET	110	32.552	52.749	28.268	1.00	41.86	lite	0
ATOM	835	C	MET	110	34.890	49.754	30.010	1.00	2.00	lite	0
ATOM	836	O	MET	110	34.399	48.652	29.760	1.00	41.86	lite	0
ATOM	837	N	ARG	111	34.746	50.365	31.176	1.00	19.31	lite	0
ATOM	838	CA	ARG	111	34.257	49.675	32.340	1.00	19.31	lite	0
ATOM	839	CB	ARG	111	35.142	50.048	33.443	1.00	67.01	lite	0
ATOM	840	CG	ARG	111	35.150	48.940	34.406	1.00	67.01	lite	0
ATOM	841	CD	ARG	111	35.545	49.567	35.713	1.00	67.01	lite	0
ATOM	842	NE	ARG	111	35.652	48.511	36.711	1.00	67.01	lite	0
ATOM	843	CZ	ARG	111	35.131	48.588	37.948	1.00	67.01	lite	0
ATOM	844	NH1	ARG	111	34.462	49.675	38.374	1.00	67.01	lite	0
ATOM	845	NH2	ARG	111	35.259	47.524	38.748	1.00	67.01	lite	0
ATOM	846	C	ARG	111	32.820	49.870	32.756	1.00	19.31	lite	0
ATOM	847	O	ARG	111	32.281	50.982	32.911	1.00	67.01	lite	0
ATOM	848	N	ARG	112	32.315	48.655	32.992	1.00	24.75	lite	0
ATOM	849	CA	ARG	112	30.950	48.426	33.414	1.00	24.75	lite	0
ATOM	850	CB	ARG	112	30.097	47.899	32.304	1.00	30.56	lite	0
ATOM	851	CG	ARG	112	30.649	46.579	31.878	1.00	30.56	lite	0
ATOM	852	CD	ARG	112	29.629	45.785	31.141	1.00	30.56	lite	0
ATOM	853	NE	ARG	112	28.878	44.982	32.075	1.00	30.56	lite	0
ATOM	854	CZ	ARG	112	27.574	44.794	31.957	1.00	30.56	lite	0
ATOM	855	NH1	ARG	112	26.863	45.331	30.977	1.00	30.56	lite	0
ATOM	856	NH2	ARG	112	26.976	44.036	32.856	1.00	30.56	lite	0
ATOM	857	C	ARG	112	30.879	47.410	34.539	1.00	24.75	lite	0
ATOM	858	O	ARG	112	31.865	46.813	34.967	1.00	30.56	lite	0
ATOM	859	N	ALA	113	29.662	47.214	35.007	1.00	16.91	lite	0
ATOM	860	CA	ALA	113	29.423	46.321	36.110	1.00	16.91	lite	0
ATOM	861	CB	ALA	113	28.000	46.440	36.558	1.00	36.67	lite	0
ATOM	862	C	ALA	113	29.663	44.896	35.703	1.00	16.91	lite	0
ATOM	863	O	ALA	113	29.252	44.450	34.637	1.00	36.67	lite	0
ATOM	864	N	ASP	114	30.257	44.173	36.620	1.00	29.40	lite	0
ATOM	865	CA	ASP	114	30.684	42.835	36.299	1.00	29.40	lite	0
ATOM	866	CB	ASP	114	31.544	42.366	37.454	1.00	73.11	lite	0
ATOM	867	CG	ASP	114	32.580	43.409	37.880	1.00	73.11	lite	0
ATOM	868	OD1	ASP	114	33.067	44.199	37.050	1.00	73.11	lite	0
ATOM	869	OD2	ASP	114	32.865	43.429	39.077	1.00	73.11	lite	0

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ATOM	870	C	ASP	114	29.478	41.945	36.045	1.00	29.40	lite	0
ATOM	871	O	ASP	114	28.589	41.840	36.879	1.00	73.11	lite	0
ATOM	872	N	ALA	115	29.395	41.373	34.852	1.00	12.64	lite	0
ATOM	873	CA	ALA	115	28.323	40.498	34.449	1.00	12.64	lite	0
ATOM	874	CB	ALA	115	27.937	40.772	33.045	1.00	36.16	lite	0
ATOM	875	C	ALA	115	28.847	39.099	34.507	1.00	12.64	lite	0
ATOM	876	O	ALA	115	30.067	38.917	34.460	1.00	36.16	lite	0
ATOM	877	N	ALA	116	27.984	38.088	34.600	1.00	23.48	lite	0
ATOM	878	CA	ALA	116	28.457	36.705	34.582	1.00	23.48	lite	0
ATOM	879	CB	ALA	116	27.850	35.870	35.673	1.00	21.37	lite	0
ATOM	880	C	ALA	116	28.051	36.041	33.278	1.00	23.48	lite	0
ATOM	881	O	ALA	116	27.030	36.425	32.662	1.00	21.37	lite	0
ATOM	882	N	PRO	117	28.833	35.037	32.864	1.00	2.00	lite	0
ATOM	883	CD	PRO	117	30.061	34.586	33.495	1.00	28.33	lite	0
ATOM	884	CA	PRO	117	28.642	34.342	31.602	1.00	2.00	lite	0
ATOM	885	CB	PRO	117	29.971	33.628	31.361	1.00	28.33	lite	0
ATOM	886	CG	PRO	117	30.392	33.289	32.764	1.00	28.33	lite	0
ATOM	887	C	PRO	117	27.466	33.389	31.398	1.00	2.00	lite	0
ATOM	888	O	PRO	117	27.400	32.374	32.090	1.00	28.33	lite	0
ATOM	889	N	THR	118	26.529	33.622	30.473	1.00	22.38	lite	0
ATOM	890	CA	THR	118	25.529	32.633	30.061	1.00	22.38	lite	0
ATOM	891	CB	THR	118	24.525	33.256	29.146	1.00	45.35	lite	0
ATOM	892	OG1	THR	118	24.089	34.480	29.749	1.00	45.35	lite	0
ATOM	893	CG2	THR	118	23.414	32.277	28.850	1.00	45.35	lite	0
ATOM	894	C	THR	118	26.288	31.575	29.274	1.00	22.38	lite	0
ATOM	895	O	THR	118	26.748	31.841	28.144	1.00	45.35	lite	0
ATOM	896	N	VAL	119	26.550	30.422	29.875	1.00	28.52	lite	0
ATOM	897	CA	VAL	119	27.256	29.424	29.089	1.00	28.52	lite	0
ATOM	898	CB	VAL	119	28.316	28.749	30.048	1.00	38.79	lite	0
ATOM	899	CG1	VAL	119	27.616	28.139	31.218	1.00	38.79	lite	0
ATOM	900	CG2	VAL	119	29.119	27.663	29.331	1.00	38.79	lite	0
ATOM	901	C	VAL	119	26.238	28.474	28.436	1.00	28.52	lite	0
ATOM	902	O	VAL	119	25.121	28.309	28.929	1.00	38.79	lite	0
ATOM	903	N	SER	120	26.570	27.893	27.286	1.00	2.00	lite	0
ATOM	904	CA	SER	120	25.699	26.991	26.523	1.00	2.00	lite	0
ATOM	905	CB	SER	120	25.062	27.797	25.418	1.00	37.53	lite	0
ATOM	906	OG	SER	120	24.819	29.160	25.812	1.00	37.53	lite	0
ATOM	907	C	SER	120	26.648	25.917	25.959	1.00	2.00	lite	0
ATOM	908	O	SER	120	27.799	26.236	25.590	1.00	37.53	lite	0
ATOM	909	N	ILE	121	26.284	24.622	25.973	1.00	30.36	lite	0
ATOM	910	CA	ILE	121	27.152	23.564	25.445	1.00	30.36	lite	0
ATOM	911	CB	ILE	121	27.626	22.648	26.618	1.00	31.15	lite	0
ATOM	912	CG2	ILE	121	26.554	21.808	27.235	1.00	31.15	lite	0
ATOM	913	CG1	ILE	121	28.654	21.724	26.070	1.00	31.15	lite	0
ATOM	914	CD1	ILE	121	29.447	21.094	27.225	1.00	31.15	lite	0
ATOM	915	C	ILE	121	26.298	22.853	24.419	1.00	30.36	lite	0
ATOM	916	O	ILE	121	25.054	22.770	24.511	1.00	31.15	lite	0
ATOM	917	N	PHE	122	27.003	22.524	23.350	1.00	30.10	lite	0
ATOM	918	CA	PHE	122	26.386	22.008	22.147	1.00	30.10	lite	0
ATOM	919	CB	PHE	122	26.481	23.005	21.032	1.00	23.41	lite	0
ATOM	920	CG	PHE	122	25.595	24.211	21.271	1.00	23.41	lite	0
ATOM	921	CD1	PHE	122	24.411	24.334	20.588	1.00	23.41	lite	0
ATOM	922	CD2	PHE	122	25.968	25.196	22.135	1.00	23.41	lite	0
ATOM	923	CE1	PHE	122	23.610	25.437	20.775	1.00	23.41	lite	0
ATOM	924	CE2	PHE	122	25.181	26.288	22.329	1.00	23.41	lite	0
ATOM	925	CZ	PHE	122	24.004	26.413	21.646	1.00	23.41	lite	0
ATOM	926	C	PHE	122	27.181	20.797	21.771	1.00	30.10	lite	0
ATOM	927	O	PHE	122	28.418	20.820	21.781	1.00	23.41	lite	0
ATOM	928	N	PRO	123	26.508	19.693	21.537	1.00	25.34	lite	0
ATOM	929	CD	PRO	123	25.082	19.538	21.796	1.00	28.05	lite	0
ATOM	930	CA	PRO	123	27.152	18.450	21.134	1.00	25.34	lite	0
ATOM	931	CB	PRO	123	26.065	17.455	21.468	1.00	28.05	lite	0
ATOM	932	CG	PRO	123	25.086	18.174	22.405	1.00	28.05	lite	0
ATOM	933	C	PRO	123	27.582	18.525	19.672	1.00	25.34	lite	0
ATOM	934	O	PRO	123	27.344	19.559	19.049	1.00	28.05	lite	0
ATOM	935	N	PRO	124	28.216	17.519	19.055	1.00	23.33	lite	0
ATOM	936	CD	PRO	124	29.089	16.552	19.724	1.00	28.95	lite	0

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ATOM	937	CA	PRO	124	28.496	17.484	17.619	1.00	23.33	lite	0
ATOM	938	CB	PRO	124	29.293	16.213	17.434	1.00	28.95	lite	0
ATOM	939	CG	PRO	124	30.136	16.177	18.671	1.00	28.95	lite	0
ATOM	940	C	PRO	124	27.276	17.544	16.724	1.00	23.33	lite	0
ATOM	941	^	PRO	124	26.227	17.061	17.127	1.00	28.95	lite	0
ATOM	942	N	SER	125	27.333	18.125	15.517	1.00	32.42	lite	0
ATOM	943	CA	SER	125	26.195	18.024	14.601	1.00	32.42	lite	0
ATOM	944	CB	SER	125	26.184	19.148	13.610	1.00	57.38	lite	0
ATOM	945	OG	SER	125	27.375	19.117	12.838	1.00	57.38	lite	0
ATOM	946	C	SER	125	26.367	16.719	13.828	1.00	32.42	lite	0
ATOM	947	O	SER	125	27.511	16.336	13.503	1.00	57.38	lite	0
ATOM	948	N	SER	126	25.290	16.055	13.403	1.00	48.68	lite	0
ATOM	949	CA	SER	126	25.468	14.764	12.767	1.00	48.68	lite	0
ATOM	950	CB	SER	126	24.137	14.203	12.399	1.00	67.20	lite	0
ATOM	951	OG	SER	126	23.561	13.960	13.678	1.00	67.20	lite	0
ATOM	952	C	SER	126	26.364	14.792	11.561	1.00	48.68	lite	0
ATOM	953	O	SER	126	27.215	13.910	11.434	1.00	67.20	lite	0
ATOM	954	N	GLU	127	26.316	15.914	10.841	1.00	22.07	lite	0
ATOM	955	CA	GLU	127	27.150	16.096	9.664	1.00	22.07	lite	0
ATOM	956	CB	GLU	127	26.998	17.470	9.079	1.00	63.37	lite	0
ATOM	957	CG	GLU	127	25.669	17.688	8.378	1.00	63.37	lite	0
ATOM	958	CD	GLU	127	24.498	18.219	9.211	1.00	63.37	lite	0
ATOM	959	OE1	GLU	127	23.702	18.936	8.589	1.00	63.37	lite	0
ATOM	960	OE2	GLU	127	24.373	17.931	10.422	1.00	63.37	lite	0
ATOM	961	C	GLU	127	28.626	15.908	9.963	1.00	22.07	lite	0
ATOM	962	O	GLU	127	29.326	15.199	9.238	1.00	63.37	lite	0
ATOM	963	N	GLN	128	29.089	16.425	11.086	1.00	41.83	lite	0
ATOM	964	CA	GLN	128	30.506	16.323	11.331	1.00	41.83	lite	0
ATOM	965	CB	GLN	128	30.832	17.307	12.405	1.00	28.83	lite	0
ATOM	966	CG	GLN	128	32.295	17.504	12.598	1.00	28.83	lite	0
ATOM	967	CD	GLN	128	32.536	18.213	13.908	1.00	28.83	lite	0
ATOM	968	OE1	GLN	128	31.643	18.447	14.733	1.00	28.83	lite	0
ATOM	969	NE2	GLN	128	33.783	18.576	14.153	1.00	28.83	lite	0
ATOM	970	C	GLN	128	30.874	14.903	11.729	1.00	41.83	lite	0
ATOM	971	O	GLN	128	31.897	14.314	11.325	1.00	28.83	lite	0
ATOM	972	N	LEU	129	29.971	14.314	12.491	1.00	40.35	lite	0
ATOM	973	CA	LEU	129	30.265	12.984	12.940	1.00	40.35	lite	0
ATOM	974	CB	LEU	129	29.195	12.583	13.869	1.00	45.87	lite	0
ATOM	975	CG	LEU	129	29.571	12.848	15.291	1.00	45.87	lite	0
ATOM	976	CD1	LEU	129	28.360	12.853	16.213	1.00	45.87	lite	0
ATOM	977	CD2	LEU	129	30.572	11.780	15.663	1.00	45.87	lite	0
ATOM	978	C	LEU	129	30.381	12.023	11.780	1.00	40.35	lite	0
ATOM	979	O	LEU	129	31.288	11.199	11.713	1.00	45.87	lite	0
ATOM	980	N	THR	130	29.496	12.218	10.811	1.00	59.77	lite	0
ATOM	981	CA	THR	130	29.470	11.473	9.565	1.00	59.77	lite	0
ATOM	982	CB	THR	130	28.369	12.198	8.784	1.00	55.29	lite	0
ATOM	983	OG1	THR	130	27.194	11.577	9.320	1.00	55.29	lite	0
ATOM	984	CG2	THR	130	28.517	12.237	7.269	1.00	55.29	lite	0
ATOM	985	C	THR	130	30.860	11.465	8.941	1.00	59.77	lite	0
ATOM	986	O	THR	130	31.424	10.404	8.650	1.00	55.29	lite	0
ATOM	987	N	SER	131	31.437	12.673	8.927	1.00	44.69	lite	0
ATOM	988	CA	SER	131	32.766	12.946	8.434	1.00	44.69	lite	0
ATOM	989	CB	SER	131	32.842	14.414	8.098	1.00	83.54	lite	0
ATOM	990	OG	SER	131	31.721	14.794	7.315	1.00	83.54	lite	0
ATOM	991	C	SER	131	33.858	12.577	9.433	1.00	44.69	lite	0
ATOM	992	O	SER	131	34.954	13.156	9.438	1.00	83.54	lite	0
ATOM	993	N	GLY	132	33.620	11.626	10.323	1.00	70.66	lite	0
ATOM	994	CA	GLY	132	34.655	11.168	11.218	1.00	70.66	lite	0
ATOM	995	C	GLY	132	35.147	12.185	12.233	1.00	70.66	lite	0
ATOM	996	O	GLY	132	35.994	11.796	13.052	1.00	59.34	lite	0
ATOM	997	N	GLY	133	34.676	13.431	12.289	1.00	41.02	lite	0
ATOM	998	CA	GLY	133	35.191	14.340	13.298	1.00	41.02	lite	0
ATOM	999	C	GLY	133	34.147	14.688	14.334	1.00	41.02	lite	0
ATOM	1000	O	GLY	133	32.958	14.592	14.018	1.00	22.49	lite	0
ATOM	1001	N	ALA	134	34.547	15.112	15.544	1.00	19.27	lite	0
ATOM	1002	CA	ALA	134	33.568	15.559	16.536	1.00	19.27	lite	0
ATOM	1003	CB	ALA	134	33.322	14.414	17.507	1.00	47.51	lite	0

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ATOM	1004	C	ALA	134	33.915	16.837	17.328	1.00	19.27	lite	0
ATOM	1005	O	ALA	134	34.768	16.806	18.211	1.00	47.51	lite	0
ATOM	1006	N	SER	135	33.358	18.023	17.079	1.00	2.00	lite	0
ATOM	1007	CA	SER	135	33.653	19.189	17.898	1.00	2.00	lite	0
ATOM	1008	CB	SER	135	33.953	20.359	17.001	1.00	38.27	lite	0
ATOM	1009	OG	SER	135	35.072	19.996	16.207	1.00	38.27	lite	0
ATOM	1010	C	SER	135	32.501	19.531	18.829	1.00	2.00	lite	0
ATOM	1011	O	SER	135	31.336	19.619	18.427	1.00	38.27	lite	0
ATOM	1012	N	VAL	136	32.833	19.632	20.105	1.00	24.33	lite	0
ATOM	1013	CA	VAL	136	31.876	19.932	21.144	1.00	24.33	lite	0
ATOM	1014	CB	VAL	136	32.102	19.007	22.361	1.00	32.04	lite	0
ATOM	1015	CG1	VAL	136	30.708	18.802	22.925	1.00	32.04	lite	0
ATOM	1016	CG2	VAL	136	32.590	17.603	22.045	1.00	32.04	lite	0
ATOM	1017	C	VAL	136	32.122	21.372	21.508	1.00	24.33	lite	0
ATOM	1018	O	VAL	136	33.308	21.703	21.658	1.00	32.04	lite	0
ATOM	1019	N	VAL	137	31.076	22.196	21.668	1.00	2.00	lite	0
ATOM	1020	CA	VAL	137	31.237	23.649	21.723	1.00	2.00	lite	0
ATOM	1021	CB	VAL	137	30.847	24.204	20.345	1.00	24.78	lite	0
ATOM	1022	CG1	VAL	137	30.662	25.706	20.314	1.00	24.78	lite	0
ATOM	1023	CG2	VAL	137	32.025	23.975	19.424	1.00	24.78	lite	0
ATOM	1024	C	VAL	137	30.472	24.364	22.815	1.00	2.00	lite	0
ATOM	1025	O	VAL	137	29.288	24.114	23.097	1.00	24.78	lite	0
ATOM	1026	N	CYS	138	31.191	25.277	23.441	1.00	2.00	lite	0
ATOM	1027	CA	CYS	138	30.675	25.870	24.649	1.00	2.00	lite	0
ATOM	1028	C	CYS	138	30.817	27.342	24.396	1.00	2.00	lite	0
ATOM	1029	O	CYS	138	31.867	27.798	23.919	1.00	29.69	lite	0
ATOM	1030	CB	CYS	138	31.539	25.350	25.749	1.00	29.69	lite	0
ATOM	1031	SG	CYS	138	31.143	26.016	27.364	1.00	29.69	lite	0
ATOM	1032	N	PHE	139	29.733	28.048	24.659	1.00	2.00	lite	0
ATOM	1033	CA	PHE	139	29.651	29.471	24.412	1.00	2.00	lite	0
ATOM	1034	CB	PHE	139	28.429	29.923	23.636	1.00	20.59	lite	0
ATOM	1035	CG	PHE	139	28.346	29.627	22.132	1.00	20.59	lite	0
ATOM	1036	CD1	PHE	139	29.393	29.898	21.279	1.00	20.59	lite	0
ATOM	1037	CD2	PHE	139	27.182	29.134	21.571	1.00	20.59	lite	0
ATOM	1038	CE1	PHE	139	29.290	29.691	19.909	1.00	20.59	lite	0
ATOM	1039	CE2	PHE	139	27.088	28.935	20.210	1.00	20.59	lite	0
ATOM	1040	CZ	PHE	139	28.136	29.211	19.366	1.00	20.59	lite	0
ATOM	1041	C	PHE	139	29.501	30.120	25.745	1.00	2.00	lite	0
ATOM	1042	O	PHE	139	28.546	29.809	26.469	1.00	20.59	lite	0
ATOM	1043	N	LEU	140	30.438	31.010	26.033	1.00	2.00	lite	0
ATOM	1044	CA	LEU	140	30.352	31.672	27.293	1.00	2.00	lite	0
ATOM	1045	CB	LEU	140	31.619	31.485	28.033	1.00	18.35	lite	0
ATOM	1046	CG	LEU	140	32.090	30.082	28.336	1.00	18.35	lite	0
ATOM	1047	CD1	LEU	140	32.648	29.415	27.102	1.00	18.35	lite	0
ATOM	1048	CD2	LEU	140	33.222	30.172	29.341	1.00	18.35	lite	0
ATOM	1049	C	LEU	140	30.144	33.084	26.881	1.00	2.00	lite	0
ATOM	1050	O	LEU	140	31.020	33.834	26.471	1.00	18.35	lite	0
ATOM	1051	N	ASN	141	28.869	33.357	26.925	1.00	2.00	lite	0
ATOM	1052	CA	ASN	141	28.366	34.591	26.382	1.00	2.00	lite	0
ATOM	1053	CB	ASN	141	27.061	34.456	25.638	1.00	28.91	lite	0
ATOM	1054	CG	ASN	141	27.038	33.920	24.232	1.00	28.91	lite	0
ATOM	1055	OD1	ASN	141	27.999	33.936	23.473	1.00	28.91	lite	0
ATOM	1056	ND2	ASN	141	25.854	33.534	23.778	1.00	28.91	lite	0
ATOM	1057	C	ASN	141	28.051	35.645	27.401	1.00	2.00	lite	0
ATOM	1058	O	ASN	141	27.554	35.420	28.505	1.00	28.91	lite	0
ATOM	1059	N	ASN	142	28.290	36.837	26.896	1.00	2.00	lite	0
ATOM	1060	CA	ASN	142	27.920	38.059	27.555	1.00	2.00	lite	0
ATOM	1061	CB	ASN	142	26.439	38.154	27.561	1.00	23.74	lite	0
ATOM	1062	CG	ASN	142	25.882	38.664	26.275	1.00	23.74	lite	0
ATOM	1063	OD1	ASN	142	25.446	37.845	25.466	1.00	23.74	lite	0
ATOM	1064	ND2	ASN	142	25.842	39.987	26.076	1.00	23.74	lite	0
ATOM	1065	C	ASN	142	28.402	38.321	28.955	1.00	2.00	lite	0
ATOM	1066	O	ASN	142	27.575	38.502	29.842	1.00	23.74	lite	0
ATOM	1067	N	PHE	143	29.708	38.399	29.201	1.00	41.87	lite	0
ATOM	1068	CA	PHE	143	30.213	38.651	30.540	1.00	41.87	lite	0
ATOM	1069	CB	PHE	143	31.011	37.451	30.988	1.00	25.57	lite	0
ATOM	1070	CG	PHE	143	32.141	37.046	30.074	1.00	25.57	lite	0

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ATOM	1071	CD1	PHE	143	33.357	37.664	30.151	1.00	25.57	lite	0
ATOM	1072	CD2	PHE	143	31.942	36.040	29.173	1.00	25.57	lite	0
ATOM	1073	CE1	PHE	143	34.371	37.272	29.323	1.00	25.57	lite	0
ATOM	1074	CE2	PHE	143	32.966	35.653	28.347	1.00	25.57	lite	0
ATOM	1075	CZ	PHE	143	34.185	36.266	28.419	1.00	25.57	lite	0
ATOM	1076	C	PHE	143	31.076	39.903	30.655	1.00	41.87	lite	0
ATOM	1077	O	PHE	143	31.466	40.485	29.627	1.00	25.57	lite	0
ATOM	1078	N	TYR	144	31.392	40.335	31.880	1.00	20.17	lite	0
ATOM	1079	CA	TYR	144	32.326	41.416	32.111	1.00	20.17	lite	0
ATOM	1080	CB	TYR	144	31.666	42.741	32.263	1.00	28.84	lite	0
ATOM	1081	CG	TYR	144	32.746	43.764	32.199	1.00	28.84	lite	0
ATOM	1082	CD1	TYR	144	33.267	44.294	33.338	1.00	28.84	lite	0
ATOM	1083	CE1	TYR	144	34.311	45.192	33.289	1.00	28.84	lite	0
ATOM	1084	CD2	TYR	144	33.259	44.140	30.995	1.00	28.84	lite	0
ATOM	1085	CE2	TYR	144	34.303	45.048	30.943	1.00	28.84	lite	0
ATOM	1086	CZ	TYR	144	34.828	45.569	32.092	1.00	28.84	lite	0
ATOM	1087	OH	TYR	144	35.886	46.447	32.036	1.00	28.84	lite	0
ATOM	1088	C	TYR	144	32.927	41.062	33.449	1.00	20.17	lite	0
ATOM	1089	O	TYR	144	32.180	40.712	34.365	1.00	28.84	lite	0
ATOM	1090	N	CPR	145	34.228	41.050	33.664	1.00	38.40	lite	0
ATOM	1091	CD	CPR	145	34.785	41.100	35.005	1.00	40.30	lite	0
ATOM	1092	CA	CPR	145	35.218	41.343	32.653	1.00	38.40	lite	0
ATOM	1093	CB	CPR	145	36.292	41.984	33.440	1.00	40.30	lite	0
ATOM	1094	CG	CPR	145	36.243	41.207	34.727	1.00	40.30	lite	0
ATOM	1095	C	CPR	145	35.635	40.101	31.893	1.00	38.40	lite	0
ATOM	1096	O	CPR	145	35.127	39.017	32.134	1.00	40.30	lite	0
ATOM	1097	N	LYS	146	36.621	40.264	31.036	1.00	13.18	lite	0
ATOM	1098	CA	LYS	146	37.070	39.244	30.108	1.00	13.18	lite	0
ATOM	1099	CB	LYS	146	37.935	39.920	29.038	1.00	77.86	lite	0
ATOM	1100	CG	LYS	146	38.903	40.970	29.571	1.00	77.86	lite	0
ATOM	1101	CD	LYS	146	39.716	41.640	28.480	1.00	77.86	lite	0
ATOM	1102	CE	LYS	146	40.622	42.697	29.132	1.00	77.86	lite	0
ATOM	1103	NZ	LYS	146	41.722	43.109	28.265	1.00	77.86	lite	0
ATOM	1104	C	LYS	146	37.797	38.011	30.591	1.00	13.18	lite	0
ATOM	1105	O	LYS	146	37.826	36.969	29.934	1.00	77.86	lite	0
ATOM	1106	N	ASP	147	38.467	38.121	31.721	1.00	2.00	lite	0
ATOM	1107	CA	ASP	147	39.268	37.036	32.272	1.00	2.00	lite	0
ATOM	1108	CB	ASP	147	40.157	37.525	33.395	1.00	62.59	lite	0
ATOM	1109	CG	ASP	147	40.362	39.048	33.387	1.00	62.59	lite	0
ATOM	1110	OD1	ASP	147	40.954	39.558	32.436	1.00	62.59	lite	0
ATOM	1111	OD2	ASP	147	39.893	39.735	34.301	1.00	62.59	lite	0
ATOM	1112	C	ASP	147	38.220	36.103	32.822	1.00	2.00	lite	0
ATOM	1113	O	ASP	147	37.302	36.417	33.605	1.00	62.59	lite	0
ATOM	1114	N	ILE	148	38.282	35.006	32.124	1.00	2.00	lite	0
ATOM	1115	CA	ILE	148	37.432	33.904	32.459	1.00	2.00	lite	0
ATOM	1116	CB	ILE	148	36.068	33.996	31.718	1.00	22.56	lite	0
ATOM	1117	CG2	ILE	148	36.246	34.029	30.219	1.00	22.56	lite	0
ATOM	1118	CG1	ILE	148	35.229	32.796	32.121	1.00	22.56	lite	0
ATOM	1119	CD1	ILE	148	33.790	32.736	31.606	1.00	22.56	lite	0
ATOM	1120	C	ILE	148	38.210	32.660	32.054	1.00	2.00	lite	0
ATOM	1121	O	ILE	148	38.990	32.648	31.098	1.00	22.56	lite	0
ATOM	1122	N	ASN	149	38.066	31.622	32.868	1.00	51.19	lite	0
ATOM	1123	CA	ASN	149	38.762	30.389	32.665	1.00	51.19	lite	0
ATOM	1124	CB	ASN	149	39.535	30.168	33.957	1.00	101.04	lite	0
ATOM	1125	CG	ASN	149	39.602	28.727	34.446	1.00	101.04	lite	0
ATOM	1126	OD1	ASN	149	38.995	28.358	35.452	1.00	101.04	lite	0
ATOM	1127	ND2	ASN	149	40.358	27.867	33.765	1.00	101.04	lite	0
ATOM	1128	C	ASN	149	37.761	29.290	32.317	1.00	51.19	lite	0
ATOM	1129	O	ASN	149	36.662	29.196	32.864	1.00	101.04	lite	0
ATOM	1130	N	VAL	150	38.123	28.501	31.312	1.00	28.06	lite	0
ATOM	1131	CA	VAL	150	37.302	27.372	30.958	1.00	28.06	lite	0
ATOM	1132	CB	VAL	150	36.774	27.350	29.565	1.00	54.95	lite	0
ATOM	1133	CG1	VAL	150	35.317	27.657	29.708	1.00	54.95	lite	0
ATOM	1134	CG2	VAL	150	37.569	28.245	28.637	1.00	54.95	lite	0
ATOM	1135	C	VAL	150	38.077	26.100	31.046	1.00	28.06	lite	0
ATOM	1136	O	VAL	150	39.213	25.973	30.568	1.00	54.95	lite	0
ATOM	1137	N	LYS	151	37.327	25.183	31.626	1.00	56.33	lite	0

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ATOM	1138	CA	LYS	151	37.819	23.875	31.899	1.00	56.33	lite	0
ATOM	1139	CB	LYS	151	37.733	23.568	33.422	1.00	72.68	lite	0
ATOM	1140	CG	LYS	151	38.374	24.535	34.471	1.00	72.68	lite	0
ATOM	1141	CD	LYS	151	37.451	25.037	35.637	1.00	72.68	lite	0
ATOM	1142	CE	LYS	151	37.233	24.073	36.814	1.00	72.68	lite	0
ATOM	1143	NZ	LYS	151	36.196	24.538	37.720	1.00	72.68	lite	0
ATOM	1144	C	LYS	151	36.943	22.921	31.116	1.00	56.33	lite	0
ATOM	1145	O	LYS	151	35.716	22.856	31.198	1.00	72.68	lite	0
ATOM	1146	N	TRP	152	37.631	22.194	30.287	1.00	26.34	lite	0
ATOM	1147	CA	TRP	152	36.977	21.149	29.555	1.00	26.34	lite	0
ATOM	1148	CB	TRP	152	37.536	21.082	28.182	1.00	59.47	lite	0
ATOM	1149	CG	TRP	152	36.573	21.754	27.232	1.00	59.47	lite	0
ATOM	1150	CD2	TRP	152	35.307	21.320	26.940	1.00	59.47	lite	0
ATOM	1151	CE2	TRP	152	34.940	22.220	25.957	1.00	59.47	lite	0
ATOM	1152	CE3	TRP	152	34.451	20.318	27.334	1.00	59.47	lite	0
ATOM	1153	CD1	TRP	152	36.954	22.850	26.510	1.00	59.47	lite	0
ATOM	1154	NE1	TRP	152	35.934	23.098	25.739	1.00	59.47	lite	0
ATOM	1155	CZ2	TRP	152	33.705	22.147	25.346	1.00	59.47	lite	0
ATOM	1156	CZ3	TRP	152	33.215	20.245	26.722	1.00	59.47	lite	0
ATOM	1157	CH2	TRP	152	32.840	21.147	25.732	1.00	59.47	lite	0
ATOM	1158	C	TRP	152	37.108	19.794	30.190	1.00	26.34	lite	0
ATOM	1159	O	TRP	152	38.079	19.067	30.021	1.00	59.47	lite	0
ATOM	1160	N	LYS	153	36.111	19.479	30.971	1.00	29.41	lite	0
ATOM	1161	CA	LYS	153	36.075	18.200	31.620	1.00	29.41	lite	0
ATOM	1162	CB	LYS	153	35.501	18.410	33.020	1.00	89.42	lite	0
ATOM	1163	CG	LYS	153	35.203	17.160	33.854	1.00	89.42	lite	0
ATOM	1164	CD	LYS	153	33.713	16.715	33.826	1.00	89.42	lite	0
ATOM	1165	CE	LYS	153	32.904	16.961	35.131	1.00	89.42	lite	0
ATOM	1166	NZ	LYS	153	33.243	16.075	36.245	1.00	89.42	lite	0
ATOM	1167	C	LYS	153	35.235	17.243	30.792	1.00	29.41	lite	0
ATOM	1168	O	LYS	153	34.009	17.383	30.683	1.00	89.42	lite	0
ATOM	1169	N	ILE	154	35.874	16.279	30.128	1.00	48.39	lite	0
ATOM	1170	CA	ILE	154	35.095	15.173	29.568	1.00	48.39	lite	0
ATOM	1171	CB	ILE	154	35.786	14.493	28.329	1.00	51.97	lite	0
ATOM	1172	CG2	ILE	154	36.536	15.564	27.579	1.00	51.97	lite	0
ATOM	1173	CG1	ILE	154	36.792	13.441	28.675	1.00	51.97	lite	0
ATOM	1174	CD1	ILE	154	37.356	12.757	27.424	1.00	51.97	lite	0
ATOM	1175	C	ILE	154	34.993	14.191	30.758	1.00	48.39	lite	0
ATOM	1176	O	ILE	154	35.444	14.560	31.840	1.00	51.97	lite	0
ATOM	1177	N	ASP	155	34.427	12.971	30.693	1.00	60.83	lite	0
ATOM	1178	CA	ASP	155	34.284	11.971	31.777	1.00	60.83	lite	0
ATOM	1179	CB	ASP	155	34.384	10.559	31.279	1.00	77.21	lite	0
ATOM	1180	CG	ASP	155	33.079	10.083	30.734	1.00	77.21	lite	0
ATOM	1181	OD1	ASP	155	33.033	9.803	29.531	1.00	77.21	lite	0
ATOM	1182	OD2	ASP	155	32.137	9.996	31.536	1.00	77.21	lite	0
ATOM	1183	C	ASP	155	35.344	12.060	32.833	1.00	60.83	lite	0
ATOM	1184	O	ASP	155	36.401	11.459	32.644	1.00	77.21	lite	0
ATOM	1185	N	GLY	156	35.098	12.909	33.845	1.00	72.08	lite	0
ATOM	1186	CA	GLY	156	35.986	13.244	34.964	1.00	72.08	lite	0
ATOM	1187	C	GLY	156	37.388	13.764	34.614	1.00	72.08	lite	0
ATOM	1188	O	GLY	156	38.155	14.158	35.497	1.00	79.74	lite	0
ATOM	1189	N	SER	157	37.766	13.798	33.349	1.00	79.91	lite	0
ATOM	1190	CA	SER	157	39.095	14.108	32.899	1.00	79.91	lite	0
ATOM	1191	CB	SER	157	39.497	12.989	31.902	1.00	92.43	lite	0
ATOM	1192	OG	SER	157	38.481	12.336	31.114	1.00	92.43	lite	0
ATOM	1193	C	SER	157	39.109	15.478	32.274	1.00	79.91	lite	0
ATOM	1194	O	SER	157	38.302	15.688	31.357	1.00	92.43	lite	0
ATOM	1195	N	GLU	158	39.918	16.437	32.741	1.00	86.31	lite	0
ATOM	1196	CA	GLU	158	40.040	17.665	31.962	1.00	86.31	lite	0
ATOM	1197	CB	GLU	158	40.834	18.749	32.716	1.00	119.68	lite	0
ATOM	1198	CG	GLU	158	41.536	19.885	31.917	1.00	119.68	lite	0
ATOM	1199	CD	GLU	158	40.748	20.906	31.098	1.00	119.68	lite	0
ATOM	1200	OE1	GLU	158	40.559	20.718	29.895	1.00	119.68	lite	0
ATOM	1201	OE2	GLU	158	40.365	21.927	31.661	1.00	119.68	lite	0
ATOM	1202	C	GLU	158	40.789	17.276	30.689	1.00	86.31	lite	0
ATOM	1203	O	GLU	158	41.885	16.708	30.805	1.00	119.68	lite	0
ATOM	1204	N	ARG	159	40.261	17.469	29.471	1.00	65.27	lite	0

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ATOM	1205	CA	ARG	159	41.035	17.140	28.286	1.00	65.27	lite	0
ATOM	1206	CB	ARG	159	40.194	16.678	27.092	1.00	96.09	lite	0
ATOM	1207	CG	ARG	159	41.020	15.957	25.993	1.00	96.09	lite	0
ATOM	1208	CD	ARG	159	41.889	14.758	26.432	1.00	96.09	lite	0
ATOM	1209	NE	ARG	159	41.380	14.072	27.624	1.00	96.09	lite	0
ATOM	1210	CZ	ARG	159	42.187	13.563	28.573	1.00	96.09	lite	0
ATOM	1211	NH1	ARG	159	43.518	13.616	28.502	1.00	96.09	lite	0
ATOM	1212	NH2	ARG	159	41.659	13.082	29.693	1.00	96.09	lite	0
ATOM	1213	C	ARG	159	41.719	18.428	27.953	1.00	65.27	lite	0
ATOM	1214	O	ARG	159	41.215	19.431	27.477	1.00	96.09	lite	0
ATOM	1215	N	GLN	160	42.838	18.342	28.621	1.00	76.69	lite	0
ATOM	1216	CA	GLN	160	43.914	19.286	28.540	1.00	76.69	lite	0
ATOM	1217	CB	GLN	160	45.187	18.469	28.799	1.00113.39	lite	0	
ATOM	1218	CG	GLN	160	45.196	16.910	28.675	1.00113.39	lite	0	
ATOM	1219	CD	GLN	160	45.479	16.240	27.322	1.00113.39	lite	0	
ATOM	1220	OE1	GLN	160	45.150	16.727	26.239	1.00113.39	lite	0	
ATOM	1221	NE2	GLN	160	46.099	15.065	27.318	1.00113.39	lite	0	
ATOM	1222	C	GLN	160	44.040	20.125	27.273	1.00	76.69	lite	0
ATOM	1223	O	GLN	160	44.198	21.348	27.333	1.00113.39	lite	0	
ATOM	1224	N	ASN	161	43.964	19.413	26.138	1.00	86.12	lite	0
ATOM	1225	CA	ASN	161	44.253	19.968	24.827	1.00	86.12	lite	0
ATOM	1226	CB	ASN	161	45.706	19.612	24.490	1.00104.43	lite	0	
ATOM	1227	CG	ASN	161	46.370	20.471	23.429	1.00104.43	lite	0	
ATOM	1228	OD1	ASN	161	45.744	21.305	22.768	1.00104.43	lite	0	
ATOM	1229	ND2	ASN	161	47.674	20.298	23.242	1.00104.43	lite	0	
ATOM	1230	C	ASN	161	43.299	19.417	23.772	1.00	86.12	lite	0
ATOM	1231	O	ASN	161	42.613	18.417	24.006	1.00104.43	lite	0	
ATOM	1232	N	GLY	162	43.315	20.057	22.595	1.00	71.67	lite	0
ATOM	1233	CA	GLY	162	42.433	19.766	21.474	1.00	71.67	lite	0
ATOM	1234	C	GLY	162	41.315	20.798	21.486	1.00	71.67	lite	0
ATOM	1235	O	GLY	162	40.251	20.654	20.880	1.00	52.93	lite	0
ATOM	1236	N	VAL	163	41.612	21.904	22.149	1.00	2.00	lite	0
ATOM	1237	CA	VAL	163	40.630	22.920	22.416	1.00	2.00	lite	0
ATOM	1238	CB	VAL	163	40.479	22.908	23.946	1.00	38.10	lite	0
ATOM	1239	CG1	VAL	163	41.826	23.219	24.575	1.00	38.10	lite	0
ATOM	1240	CG2	VAL	163	39.418	23.898	24.389	1.00	38.10	lite	0
ATOM	1241	C	VAL	163	41.060	24.247	21.814	1.00	2.00	lite	0
ATOM	1242	O	VAL	163	42.261	24.460	21.638	1.00	38.10	lite	0
ATOM	1243	N	LEU	164	40.073	25.077	21.441	1.00	28.00	lite	0
ATOM	1244	CA	LEU	164	40.228	26.358	20.756	1.00	28.00	lite	0
ATOM	1245	CB	LEU	164	39.736	26.316	19.341	1.00	41.89	lite	0
ATOM	1246	CG	LEU	164	40.563	25.433	18.433	1.00	41.89	lite	0
ATOM	1247	CD1	LEU	164	39.675	24.842	17.315	1.00	41.89	lite	0
ATOM	1248	CD2	LEU	164	41.773	26.246	17.976	1.00	41.89	lite	0
ATOM	1249	C	LEU	164	39.399	27.419	21.410	1.00	28.00	lite	0
ATOM	1250	O	LEU	164	38.179	27.270	21.559	1.00	41.89	lite	0
ATOM	1251	N	ASN	165	40.099	28.520	21.624	1.00	23.67	lite	0
ATOM	1252	CA	ASN	165	39.501	29.680	22.249	1.00	23.67	lite	0
ATOM	1253	CB	ASN	165	40.234	29.956	23.519	1.00	46.37	lite	0
ATOM	1254	CG	ASN	165	39.612	29.173	24.622	1.00	46.37	lite	0
ATOM	1255	OD1	ASN	165	39.236	28.015	24.448	1.00	46.37	lite	0
ATOM	1256	ND2	ASN	165	39.506	29.817	25.772	1.00	46.37	lite	0
ATOM	1257	C	ASN	165	39.426	30.988	21.470	1.00	23.67	lite	0
ATOM	1258	O	ASN	165	40.481	31.427	21.004	1.00	46.37	lite	0
ATOM	1259	N	SER	166	38.270	31.651	21.315	1.00	2.00	lite	0
ATOM	1260	CA	SER	166	38.170	32.954	20.668	1.00	2.00	lite	0
ATOM	1261	CB	SER	166	37.544	32.784	19.310	1.00	37.42	lite	0
ATOM	1262	OG	SER	166	37.592	33.986	18.576	1.00	37.42	lite	0
ATOM	1263	C	SER	166	37.293	33.818	21.572	1.00	2.00	lite	0
ATOM	1264	O	SER	166	36.368	33.294	22.213	1.00	37.42	lite	0
ATOM	1265	N	TRP	167	37.625	35.102	21.728	1.00	2.00	lite	0
ATOM	1266	CA	TRP	167	36.891	36.070	22.537	1.00	2.00	lite	0
ATOM	1267	CB	TRP	167	37.706	36.859	23.536	1.00	25.34	lite	0
ATOM	1268	CG	TRP	167	38.119	36.157	24.790	1.00	25.34	lite	0
ATOM	1269	CD2	TRP	167	39.054	35.183	24.874	1.00	25.34	lite	0
ATOM	1270	CE2	TRP	167	38.953	34.837	26.224	1.00	25.34	lite	0
ATOM	1271	CE3	TRP	167	39.921	34.550	24.004	1.00	25.34	lite	0

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ATOM	1272	CD1	TRP	167	37.505	36.428	25.989	1.00	25.34	lite	0
ATOM	1273	NE1	TRP	167	38.035	35.601	26.856	1.00	25.34	lite	0
ATOM	1274	CZ2	TRP	167	39.743	33.838	26.738	1.00	25.34	lite	0
ATOM	1275	CZ3	TRP	167	40.716	33.546	24.535	1.00	25.34	lite	0
ATOM	1276	CH2	TRP	167	40.615	33.193	25.879	1.00	25.34	lite	0
ATOM	1277	C	TRP	167	36.423	37.158	21.610	1.00	2.00	lite	0
ATOM	1278	O	TRP	167	37.219	37.635	20.812	1.00	25.34	lite	0
ATOM	1279	N	THR	168	35.206	37.639	21.679	1.00	2.00	lite	0
ATOM	1280	CA	THR	168	34.841	38.838	20.952	1.00	2.00	lite	0
ATOM	1281	CB	THR	168	33.376	39.206	21.140	1.00	26.73	lite	0
ATOM	1282	OG1	THR	168	33.072	38.955	22.507	1.00	26.73	lite	0
ATOM	1283	CG2	THR	168	32.488	38.507	20.163	1.00	26.73	lite	0
ATOM	1284	C	THR	168	35.630	40.045	21.442	1.00	2.00	lite	0
ATOM	1285	O	THR	168	36.448	40.043	22.368	1.00	26.73	lite	0
ATOM	1286	N	ASP	169	35.395	41.138	20.763	1.00	20.70	lite	0
ATOM	1287	CA	ASP	169	35.863	42.344	21.331	1.00	20.70	lite	0
ATOM	1288	CB	ASP	169	36.371	43.240	20.207	1.00	64.71	lite	0
ATOM	1289	CG	ASP	169	37.872	43.528	20.413	1.00	64.71	lite	0
ATOM	1290	OD1	ASP	169	38.239	44.316	21.307	1.00	64.71	lite	0
ATOM	1291	OD2	ASP	169	38.684	42.950	19.680	1.00	64.71	lite	0
ATOM	1292	C	ASP	169	34.597	42.807	22.024	1.00	20.70	lite	0
ATOM	1293	O	ASP	169	33.500	42.236	21.954	1.00	64.71	lite	0
ATOM	1294	N	GLN	170	34.872	43.821	22.809	1.00	2.00	lite	0
ATOM	1295	CA	GLN	170	33.894	44.410	23.668	1.00	2.00	lite	0
ATOM	1296	CB	GLN	170	34.519	45.584	24.325	1.00	14.24	lite	0
ATOM	1297	CG	GLN	170	33.748	45.942	25.561	1.00	14.24	lite	0
ATOM	1298	CD	GLN	170	34.411	46.987	26.426	1.00	14.24	lite	0
ATOM	1299	OE1	GLN	170	35.307	47.735	26.057	1.00	14.24	lite	0
ATOM	1300	NE2	GLN	170	33.972	47.067	27.651	1.00	14.24	lite	0
ATOM	1301	C	GLN	170	32.686	44.834	22.905	1.00	2.00	lite	0
ATOM	1302	O	GLN	170	32.781	45.420	21.842	1.00	14.24	lite	0
ATOM	1303	N	ASP	171	31.527	44.604	23.448	1.00	2.00	lite	0
ATOM	1304	CA	ASP	171	30.355	45.013	22.740	1.00	2.00	lite	0
ATOM	1305	CB	ASP	171	29.179	44.228	23.301	1.00	57.39	lite	0
ATOM	1306	CG	ASP	171	27.914	44.394	22.451	1.00	57.39	lite	0
ATOM	1307	OD1	ASP	171	27.653	43.580	21.556	1.00	57.39	lite	0
ATOM	1308	OD2	ASP	171	27.175	45.353	22.677	1.00	57.39	lite	0
ATOM	1309	C	ASP	171	30.160	46.528	22.871	1.00	2.00	lite	0
ATOM	1310	O	ASP	171	30.174	47.104	23.966	1.00	57.39	lite	0
ATOM	1311	N	SER	172	29.785	47.143	21.752	1.00	21.97	lite	0
ATOM	1312	CA	SER	172	29.551	48.567	21.684	1.00	21.97	lite	0
ATOM	1313	CB	SER	172	29.937	49.034	20.281	1.00	59.19	lite	0
ATOM	1314	OG	SER	172	29.712	47.976	19.355	1.00	59.19	lite	0
ATOM	1315	C	SER	172	28.145	48.988	22.044	1.00	21.97	lite	0
ATOM	1316	O	SER	172	27.682	50.035	21.612	1.00	59.19	lite	0
ATOM	1317	N	LYS	173	27.414	48.189	22.822	1.00	2.00	lite	0
ATOM	1318	CA	LYS	173	26.082	48.561	23.310	1.00	2.00	lite	0
ATOM	1319	CB	LYS	173	25.018	47.823	22.494	1.00	87.16	lite	0
ATOM	1320	CG	LYS	173	23.644	48.472	22.606	1.00	87.16	lite	0
ATOM	1321	CD	LYS	173	23.031	48.728	21.225	1.00	87.16	lite	0
ATOM	1322	CE	LYS	173	23.806	49.756	20.380	1.00	87.16	lite	0
ATOM	1323	NZ	LYS	173	23.244	49.924	19.043	1.00	87.16	lite	0
ATOM	1324	C	LYS	173	25.980	48.218	24.807	1.00	2.00	lite	0
ATOM	1325	O	LYS	173	25.530	49.040	25.603	1.00	87.16	lite	0
ATOM	1326	N	ASP	174	26.440	47.029	25.225	1.00	2.00	lite	0
ATOM	1327	CA	ASP	174	26.488	46.698	26.626	1.00	2.00	lite	0
ATOM	1328	CB	ASP	174	25.638	45.483	26.794	1.00	28.55	lite	0
ATOM	1329	CG	ASP	174	26.113	44.230	26.094	1.00	28.55	lite	0
ATOM	1330	OD1	ASP	174	27.308	44.012	25.973	1.00	28.55	lite	0
ATOM	1331	OD2	ASP	174	25.265	43.446	25.674	1.00	28.55	lite	0
ATOM	1332	C	ASP	174	27.914	46.481	27.190	1.00	2.00	lite	0
ATOM	1333	O	ASP	174	28.115	45.842	28.219	1.00	28.55	lite	0
ATOM	1334	N	SER	175	28.959	46.783	26.423	1.00	2.00	lite	0
ATOM	1335	CA	SER	175	30.327	46.671	26.875	1.00	2.00	lite	0
ATOM	1336	CB	SER	175	30.537	47.712	27.974	1.00	15.59	lite	0
ATOM	1337	OG	SER	175	30.181	48.955	27.355	1.00	15.59	lite	0
ATOM	1338	C	SER	175	30.778	45.314	27.326	1.00	2.00	lite	0

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ATOM	1339	O	SER	175	31.832	45.204	27.962	1.00	15.59	lite	0
ATOM	1340	N	THR	176	30.113	44.240	26.930	1.00	2.00	lite	0
ATOM	1341	CA	THR	176	30.594	42.958	27.419	1.00	2.00	lite	0
ATOM	1342	CB	THR	176	29.448	42.026	27.678	1.00	21.77	lite	0
ATOM	1343	OG1	THR	176	28.775	41.958	26.455	1.00	21.77	lite	0
ATOM	1344	CG2	THR	176	28.472	42.492	28.704	1.00	21.77	lite	0
ATOM	1345	C	THR	176	31.550	42.295	26.462	1.00	2.00	lite	0
ATOM	1346	O	THR	176	31.944	42.880	25.443	1.00	21.77	lite	0
ATOM	1347	N	TYR	177	31.914	41.074	26.859	1.00	2.00	lite	0
ATOM	1348	CA	TYR	177	32.784	40.207	26.090	1.00	2.00	lite	0
ATOM	1349	CB	TYR	177	34.046	39.979	26.827	1.00	22.81	lite	0
ATOM	1350	CG	TYR	177	34.810	41.258	26.796	1.00	22.81	lite	0
ATOM	1351	CD1	TYR	177	35.480	41.634	25.661	1.00	22.81	lite	0
ATOM	1352	CE1	TYR	177	36.239	42.780	25.661	1.00	22.81	lite	0
ATOM	1353	CD2	TYR	177	34.859	42.019	27.939	1.00	22.81	lite	0
ATOM	1354	CE2	TYR	177	35.607	43.179	27.944	1.00	22.81	lite	0
ATOM	1355	CZ	TYR	177	36.299	43.541	26.805	1.00	22.81	lite	0
ATOM	1356	OH	TYR	177	37.089	44.663	26.834	1.00	22.81	lite	0
ATOM	1357	C	TYR	177	32.062	38.905	25.923	1.00	2.00	lite	0
ATOM	1358	O	TYR	177	31.043	38.708	26.592	1.00	22.81	lite	0
ATOM	1359	N	SER	178	32.465	38.016	25.051	1.00	2.00	lite	0
ATOM	1360	CA	SER	178	31.866	36.709	25.012	1.00	2.00	lite	0
ATOM	1361	CB	SER	178	30.598	36.760	24.169	1.00	18.67	lite	0
ATOM	1362	OG	SER	178	29.697	37.863	24.432	1.00	18.67	lite	0
ATOM	1363	C	SER	178	32.951	35.828	24.398	1.00	2.00	lite	0
ATOM	1364	O	SER	178	33.907	36.349	23.814	1.00	18.67	lite	0
ATOM	1365	N	MET	179	32.937	34.513	24.528	1.00	23.48	lite	0
ATOM	1366	CA	MET	179	34.042	33.712	24.064	1.00	23.48	lite	0
ATOM	1367	CB	MET	179	35.089	33.580	25.134	1.00	26.31	lite	0
ATOM	1368	CG	MET	179	34.856	32.610	26.274	1.00	26.31	lite	0
ATOM	1369	SD	MET	179	36.523	31.982	26.602	1.00	26.31	lite	0
ATOM	1370	CE	MET	179	36.468	30.788	25.322	1.00	26.31	lite	0
ATOM	1371	C	MET	179	33.504	32.358	23.740	1.00	23.48	lite	0
ATOM	1372	O	MET	179	32.390	32.043	24.195	1.00	26.31	lite	0
ATOM	1373	N	SER	180	34.283	31.586	22.996	1.00	2.00	lite	0
ATOM	1374	CA	SER	180	33.804	30.292	22.608	1.00	2.00	lite	0
ATOM	1375	CB	SER	180	33.345	30.186	21.152	1.00	25.64	lite	0
ATOM	1376	OG	SER	180	34.353	29.971	20.146	1.00	25.64	lite	0
ATOM	1377	C	SER	180	34.941	29.338	22.723	1.00	2.00	lite	0
ATOM	1378	O	SER	180	36.060	29.695	22.306	1.00	25.64	lite	0
ATOM	1379	N	SER	181	34.583	28.131	23.193	1.00	2.00	lite	0
ATOM	1380	CA	SER	181	35.532	27.049	23.234	1.00	2.00	lite	0
ATOM	1381	CB	SER	181	35.758	26.585	24.602	1.00	41.98	lite	0
ATOM	1382	OG	SER	181	36.548	27.642	25.065	1.00	41.98	lite	0
ATOM	1383	C	SER	181	35.023	25.907	22.450	1.00	2.00	lite	0
ATOM	1384	O	SER	181	33.847	25.526	22.529	1.00	41.98	lite	0
ATOM	1385	N	THR	182	35.970	25.430	21.676	1.00	28.93	lite	0
ATOM	1386	CA	THR	182	35.698	24.323	20.805	1.00	28.93	lite	0
ATOM	1387	CB	THR	182	35.932	24.786	19.385	1.00	43.54	lite	0
ATOM	1388	OG1	THR	182	35.104	25.933	19.230	1.00	43.54	lite	0
ATOM	1389	CG2	THR	182	35.663	23.711	18.356	1.00	43.54	lite	0
ATOM	1390	C	THR	182	36.643	23.202	21.187	1.00	28.93	lite	0
ATOM	1391	O	THR	182	37.869	23.355	21.065	1.00	43.54	lite	0
ATOM	1392	N	LEU	183	36.063	22.149	21.751	1.00	26.05	lite	0
ATOM	1393	CA	LEU	183	36.809	20.960	22.005	1.00	26.05	lite	0
ATOM	1394	CB	LEU	183	36.289	20.206	23.147	1.00	36.47	lite	0
ATOM	1395	CG	LEU	183	37.057	18.927	23.357	1.00	36.47	lite	0
ATOM	1396	CD1	LEU	183	38.520	19.205	23.533	1.00	36.47	lite	0
ATOM	1397	CD2	LEU	183	36.510	18.244	24.578	1.00	36.47	lite	0
ATOM	1398	C	LEU	183	36.584	20.132	20.791	1.00	26.05	lite	0
ATOM	1399	O	LEU	183	35.450	19.903	20.393	1.00	36.47	lite	0
ATOM	1400	N	THR	184	37.663	19.622	20.272	1.00	2.00	lite	0
ATOM	1401	CA	THR	184	37.614	18.885	19.033	1.00	2.00	lite	0
ATOM	1402	CB	THR	184	38.376	19.697	17.979	1.00	40.74	lite	0
ATOM	1403	OG1	THR	184	37.708	20.947	17.919	1.00	40.74	lite	0
ATOM	1404	CG2	THR	184	38.346	19.113	16.592	1.00	40.74	lite	0
ATOM	1405	C	THR	184	38.230	17.511	19.239	1.00	2.00	lite	0

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ATOM	1406	O	THR	184	39.381	17.339	19.653	1.00	40.74	lite	0
ATOM	1407	N	LEU	185	37.431	16.509	18.922	1.00	66.73	lite	0
ATOM	1408	CA	LEU	185	37.767	15.111	19.085	1.00	66.73	lite	0
ATOM	1409	CB	LEU	185	36.845	14.442	20.120	1.00	65.68	lite	0
ATOM	1410	CG	LEU	185	36.497	15.108	21.460	1.00	65.68	lite	0
ATOM	1411	CD1	LEU	185	35.548	14.217	22.226	1.00	65.68	lite	0
ATOM	1412	CD2	LEU	185	37.740	15.313	22.306	1.00	65.68	lite	0
ATOM	1413	C	LEU	185	37.601	14.363	17.774	1.00	66.73	lite	0
ATOM	1414	O	LEU	185	37.012	14.814	16.788	1.00	65.68	lite	0
ATOM	1415	N	THR	186	38.176	13.183	17.777	1.00	45.02	lite	0
ATOM	1416	CA	THR	186	37.980	12.205	16.730	1.00	45.02	lite	0
ATOM	1417	CB	THR	186	39.029	11.140	16.926	1.00	81.98	lite	0
ATOM	1418	OG1	THR	186	40.246	11.811	17.255	1.00	81.98	lite	0
ATOM	1419	CG2	THR	186	39.093	10.219	15.729	1.00	81.98	lite	0
ATOM	1420	C	THR	186	36.568	11.638	16.970	1.00	45.02	lite	0
ATOM	1421	O	THR	186	36.202	11.510	18.149	1.00	81.98	lite	0
ATOM	1422	N	LYS	187	35.761	11.252	15.967	1.00	76.81	lite	0
ATOM	1423	CA	LYS	187	34.459	10.601	16.156	1.00	76.81	lite	0
ATOM	1424	CB	LYS	187	34.029	9.941	14.853	1.00	66.59	lite	0
ATOM	1425	CG	LYS	187	32.798	9.022	14.774	1.00	66.59	lite	0
ATOM	1426	CD	LYS	187	32.823	8.264	13.435	1.00	66.59	lite	0
ATOM	1427	CE	LYS	187	31.440	8.025	12.837	1.00	66.59	lite	0
ATOM	1428	NZ	LYS	187	31.545	7.905	11.392	1.00	66.59	lite	0
ATOM	1429	C	LYS	187	34.535	9.544	17.242	1.00	76.81	lite	0
ATOM	1430	O	LYS	187	33.976	9.755	18.297	1.00	66.59	lite	0
ATOM	1431	N	ASP	188	35.341	8.496	17.043	1.00	72.76	lite	0
ATOM	1432	CA	ASP	188	35.509	7.355	17.932	1.00	72.76	lite	0
ATOM	1433	CB	ASP	188	36.617	6.409	17.444	1.00	85.55	lite	0
ATOM	1434	CG	ASP	188	36.456	5.698	16.089	1.00	85.55	lite	0
ATOM	1435	OD1	ASP	188	35.369	5.214	15.734	1.00	85.55	lite	0
ATOM	1436	OD2	ASP	188	37.462	5.603	15.382	1.00	85.55	lite	0
ATOM	1437	C	ASP	188	35.870	7.807	19.319	1.00	72.76	lite	0
ATOM	1438	O	ASP	188	35.277	7.362	20.278	1.00	85.55	lite	0
ATOM	1439	N	GLU	189	36.814	8.729	19.424	1.00	48.55	lite	0
ATOM	1440	CA	GLU	189	37.244	9.301	20.682	1.00	48.55	lite	0
ATOM	1441	CB	GLU	189	38.232	10.400	20.404	1.00	80.57	lite	0
ATOM	1442	CG	GLU	189	38.622	11.254	21.603	1.00	80.57	lite	0
ATOM	1443	CD	GLU	189	39.901	10.871	22.346	1.00	80.57	lite	0
ATOM	1444	OE1	GLU	189	40.929	10.725	21.673	1.00	80.57	lite	0
ATOM	1445	OE2	GLU	189	39.879	10.764	23.586	1.00	80.57	lite	0
ATOM	1446	C	GLU	189	36.035	9.847	21.397	1.00	48.55	lite	0
ATOM	1447	O	GLU	189	35.850	9.615	22.586	1.00	80.57	lite	0
ATOM	1448	N	TYR	190	35.210	10.544	20.654	1.00	44.43	lite	0
ATOM	1449	CA	TYR	190	33.987	11.074	21.214	1.00	44.43	lite	0
ATOM	1450	CB	TYR	190	33.384	12.045	20.227	1.00	23.16	lite	0
ATOM	1451	CG	TYR	190	31.968	12.452	20.533	1.00	23.16	lite	0
ATOM	1452	CD1	TYR	190	31.695	13.209	21.659	1.00	23.16	lite	0
ATOM	1453	CE1	TYR	190	30.396	13.582	21.927	1.00	23.16	lite	0
ATOM	1454	CD2	TYR	190	30.981	12.045	19.661	1.00	23.16	lite	0
ATOM	1455	CE2	TYR	190	29.694	12.412	19.911	1.00	23.16	lite	0
ATOM	1456	CZ	TYR	190	29.446	13.184	21.009	1.00	23.16	lite	0
ATOM	1457	OH	TYR	190	28.225	13.770	20.979	1.00	23.16	lite	0
ATOM	1458	C	TYR	190	33.020	9.901	21.474	1.00	44.43	lite	0
ATOM	1459	O	TYR	190	32.137	9.880	22.379	1.00	23.16	lite	0
ATOM	1460	N	GLU	191	33.188	8.915	20.599	1.00	48.14	lite	0
ATOM	1461	CA	GLU	191	32.392	7.758	20.678	1.00	48.14	lite	0
ATOM	1462	CB	GLU	191	32.412	6.995	19.409	1.00	155.56	lite	0
ATOM	1463	CG	GLU	191	31.381	7.615	18.457	1.00	155.56	lite	0
ATOM	1464	CD	GLU	191	30.945	6.828	17.200	1.00	155.56	lite	0
ATOM	1465	OE1	GLU	191	29.940	7.224	16.578	1.00	155.56	lite	0
ATOM	1466	OE2	GLU	191	31.598	5.834	16.829	1.00	155.56	lite	0
ATOM	1467	C	GLU	191	32.750	6.842	21.833	1.00	48.14	lite	0
ATOM	1468	O	GLU	191	32.021	5.883	22.126	1.00	155.56	lite	0
ATOM	1469	N	ARG	192	33.838	7.074	22.557	1.00	80.24	lite	0
ATOM	1470	CA	ARG	192	34.089	6.201	23.686	1.00	80.24	lite	0
ATOM	1471	CB	ARG	192	35.499	5.597	23.484	1.00	122.40	lite	0
ATOM	1472	CG	ARG	192	33.676	6.507	23.195	1.00	122.40	lite	0

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ATOM	1473	CD	ARG	192	37.728	6.335	24.281	1.00122.40	lite	0
ATOM	1474	NE	ARG	192	39.039	6.798	23.843	1.00122.40	lite	0
ATOM	1475	CZ	ARG	192	39.955	7.355	24.656	1.00122.40	lite	0
ATOM	1476	NH1	ARG	192	39.752	7.549	25.959	1.00122.40	lite	0
ATOM	1477	NH2	ARG	192	41.138	7.705	24.149	1.00122.40	lite	0
ATOM	1478	C	ARG	192	33.915	6.919	25.012	1.00 80.24	lite	0
ATOM	1479	O	ARG	192	34.689	5.870	25.950	1.00122.40	lite	0
ATOM	1480	N	HIS	193	32.946	7.825	25.211	1.00 80.01	lite	0
ATOM	1481	CA	HIS	193	32.932	8.557	26.482	1.00 80.01	lite	0
ATOM	1482	CB	HIS	193	33.896	9.733	26.539	1.00 67.96	lite	0
ATOM	1483	CG	HIS	193	35.364	9.468	26.572	1.00 67.96	lite	0
ATOM	1484	CD2	HIS	193	36.130	9.417	25.436	1.00 67.96	lite	0
ATOM	1485	ND1	HIS	193	36.126	9.264	27.634	1.00 67.96	lite	0
ATOM	1486	CE1	HIS	193	37.346	9.089	27.169	1.00 67.96	lite	0
ATOM	1487	NE2	HIS	193	37.335	9.182	25.851	1.00 67.96	lite	0
ATOM	1488	C	HIS	193	31.607	9.199	26.829	1.00 80.01	lite	0
ATOM	1489	O	HIS	193	31.333	10.225	26.233	1.00 67.96	lite	0
ATOM	1490	N	ASN	194	30.771	8.815	27.807	1.00 51.97	lite	0
ATOM	1491	CA	ASN	194	29.495	9.503	28.010	1.00 51.97	lite	0
ATOM	1492	CB	ASN	194	28.562	8.643	28.940	1.00106.57	lite	0
ATOM	1493	CG	ASN	194	27.016	8.813	28.820	1.00106.57	lite	0
ATOM	1494	OD1	ASN	194	26.341	9.396	29.668	1.00106.57	lite	0
ATOM	1495	ND2	ASN	194	26.302	8.277	27.834	1.00106.57	lite	0
ATOM	1496	C	ASN	194	29.456	10.952	28.488	1.00 51.97	lite	0
ATOM	1497	O	ASN	194	28.415	11.561	28.330	1.00106.57	lite	0
ATOM	1498	N	SER	195	30.400	11.650	29.091	1.00 68.50	lite	0
ATOM	1499	CA	SER	195	30.180	13.056	29.406	1.00 68.50	lite	0
ATOM	1500	CB	SER	195	29.867	13.241	30.852	1.00 48.67	lite	0
ATOM	1501	OG	SER	195	28.506	12.909	30.994	1.00 48.67	lite	0
ATOM	1502	C	SER	195	31.293	14.003	29.074	1.00 68.50	lite	0
ATOM	1503	O	SER	195	32.490	13.662	29.046	1.00 48.67	lite	0
ATOM	1504	N	TYR	196	30.790	15.199	28.771	1.00 59.51	lite	0
ATOM	1505	CA	TYR	196	31.599	16.302	28.319	1.00 59.51	lite	0
ATOM	1506	CB	TYR	196	31.432	16.445	26.859	1.00 23.88	lite	0
ATOM	1507	CG	TYR	196	31.932	15.252	26.079	1.00 23.88	lite	0
ATOM	1508	CD1	TYR	196	33.239	15.260	25.660	1.00 23.88	lite	0
ATOM	1509	CE1	TYR	196	33.755	14.202	24.940	1.00 23.88	lite	0
ATOM	1510	CD2	TYR	196	31.114	14.192	25.786	1.00 23.88	lite	0
ATOM	1511	CE2	TYR	196	31.638	13.132	25.075	1.00 23.88	lite	0
ATOM	1512	CZ	TYR	196	32.951	13.131	24.642	1.00 23.88	lite	0
ATOM	1513	OH	TYR	196	33.469	12.081	23.896	1.00 23.88	lite	0
ATOM	1514	C	TYR	196	31.053	17.506	29.033	1.00 59.51	lite	0
ATOM	1515	O	TYR	196	29.835	17.569	29.260	1.00 23.88	lite	0
ATOM	1516	N	THR	197	31.958	18.418	29.398	1.00 33.24	lite	0
ATOM	1517	CA	THR	197	31.631	19.544	30.274	1.00 33.24	lite	0
ATOM	1518	CB	THR	197	31.666	19.144	31.754	1.00 44.70	lite	0
ATOM	1519	OG1	THR	197	30.958	17.920	31.872	1.00 44.70	lite	0
ATOM	1520	CG2	THR	197	31.117	20.216	32.649	1.00 44.70	lite	0
ATOM	1521	C	THR	197	32.580	20.734	30.169	1.00 33.24	lite	0
ATOM	1522	O	THR	197	33.820	20.594	30.068	1.00 44.70	lite	0
ATOM	1523	N	CYS	198	31.978	21.919	30.204	1.00 33.71	lite	0
ATOM	1524	CA	CYS	198	32.808	23.074	30.324	1.00 33.71	lite	0
ATOM	1525	C	CYS	198	32.347	23.820	31.557	1.00 33.71	lite	0
ATOM	1526	O	CYS	198	31.175	23.939	31.940	1.00 51.24	lite	0
ATOM	1527	CB	CYS	198	32.756	23.953	29.052	1.00 51.24	lite	0
ATOM	1528	SG	CYS	198	31.123	24.303	28.400	1.00 51.24	lite	0
ATOM	1529	N	GLU	199	33.453	24.057	32.254	1.00 36.12	lite	0
ATOM	1530	CA	GLU	199	33.473	24.725	33.517	1.00 36.12	lite	0
ATOM	1531	CB	GLU	199	34.303	23.956	34.507	1.00 64.07	lite	0
ATOM	1532	CG	GLU	199	33.793	22.619	34.922	1.00 64.07	lite	0
ATOM	1533	CD	GLU	199	33.787	22.537	36.429	1.00 64.07	lite	0
ATOM	1534	OE1	GLU	199	34.734	22.003	37.001	1.00 64.07	lite	0
ATOM	1535	OE2	GLU	199	32.832	23.022	37.028	1.00 64.07	lite	0
ATOM	1536	C	GLU	199	34.072	26.096	33.360	1.00 36.12	lite	0
ATOM	1537	O	GLU	199	35.272	26.281	33.173	1.00 64.07	lite	0
ATOM	1538	N	ALA	200	33.200	27.061	33.333	1.00 43.64	lite	0
ATOM	1539	CA	ALA	200	33.655	28.416	33.290	1.00 43.64	lite	0

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ATOM	1540	CB	ALA	200	32.571	29.324	32.815	1.00	31.81	lite	0
ATOM	1541	C	ALA	200	33.968	28.797	34.714	1.00	43.64	lite	0
ATOM	1542	O	ALA	200	33.083	28.558	35.542	1.00	31.81	lite	0
ATOM	1543	N	THR	201	35.139	29.294	35.105	1.00	43.29	lite	0
ATOM	1544	CA	THR	201	35.293	29.902	36.422	1.00	43.29	lite	0
ATOM	1545	CB	THR	201	36.404	29.334	37.230	1.00	70.44	lite	0
ATOM	1546	OG1	THR	201	36.487	27.941	36.966	1.00	70.44	lite	0
ATOM	1547	CG2	THR	201	36.113	29.561	38.705	1.00	70.44	lite	0
ATOM	1548	C	THR	201	35.646	31.336	36.118	1.00	43.29	lite	0
ATOM	1549	O	THR	201	36.374	31.612	35.159	1.00	70.44	lite	0
ATOM	1550	N	HIS	202	35.142	32.283	36.904	1.00	18.40	lite	0
ATOM	1551	CA	HIS	202	35.161	33.707	36.559	1.00	18.40	lite	0
ATOM	1552	CB	HIS	202	34.097	34.053	35.466	1.00	25.39	lite	0
ATOM	1553	CG	HIS	202	33.801	35.512	35.112	1.00	25.39	lite	0
ATOM	1554	CD2	HIS	202	32.608	36.060	35.423	1.00	25.39	lite	0
ATOM	1555	ND1	HIS	202	34.542	36.501	34.538	1.00	25.39	lite	0
ATOM	1556	CE1	HIS	202	33.806	37.611	34.520	1.00	25.39	lite	0
ATOM	1557	NE2	HIS	202	32.654	37.318	35.060	1.00	25.39	lite	0
ATOM	1558	C	HIS	202	34.781	34.437	37.809	1.00	18.40	lite	0
ATOM	1559	O	HIS	202	33.986	33.935	38.582	1.00	25.39	lite	0
ATOM	1560	N	LYS	203	35.193	35.686	37.939	1.00	59.28	lite	0
ATOM	1561	CA	LYS	203	34.969	36.435	39.141	1.00	59.28	lite	0
ATOM	1562	CB	LYS	203	35.414	37.881	38.939	1.00	82.83	lite	0
ATOM	1563	CG	LYS	203	34.980	38.812	40.101	1.00	82.83	lite	0
ATOM	1564	CD	LYS	203	34.737	40.270	39.667	1.00	82.83	lite	0
ATOM	1565	CE	LYS	203	36.025	41.143	39.538	1.00	82.83	lite	0
ATOM	1566	NZ	LYS	203	36.491	41.799	40.771	1.00	82.83	lite	0
ATOM	1567	C	LYS	203	33.545	36.452	39.648	1.00	59.28	lite	0
ATOM	1568	O	LYS	203	33.337	36.260	40.841	1.00	82.83	lite	0
ATOM	1569	N	THR	204	32.594	36.707	38.768	1.00	79.26	lite	0
ATOM	1570	CA	THR	204	31.236	36.943	39.252	1.00	79.26	lite	0
ATOM	1571	CB	THR	204	30.330	37.108	38.058	1.00	40.11	lite	0
ATOM	1572	OG1	THR	204	31.113	37.682	37.051	1.00	40.11	lite	0
ATOM	1573	CG2	THR	204	29.172	38.028	38.319	1.00	40.11	lite	0
ATOM	1574	C	THR	204	30.728	35.846	40.184	1.00	79.26	lite	0
ATOM	1575	O	THR	204	30.135	36.123	41.221	1.00	40.11	lite	0
ATOM	1576	N	SER	205	31.018	34.595	39.849	1.00	80.30	lite	0
ATOM	1577	CA	SER	205	30.670	33.485	40.714	1.00	80.30	lite	0
ATOM	1578	CB	SER	205	29.594	32.641	40.027	1.00	101.14	lite	0
ATOM	1579	OG	SER	205	28.471	33.411	39.594	1.00	101.14	lite	0
ATOM	1580	C	SER	205	31.910	32.633	41.013	1.00	80.30	lite	0
ATOM	1581	O	SER	205	32.596	32.111	40.120	1.00	101.14	lite	0
ATOM	1582	N	THR	206	32.132	32.453	42.318	1.00	82.84	lite	0
ATOM	1583	CA	THR	206	33.231	31.652	42.878	1.00	82.84	lite	0
ATOM	1584	CB	THR	206	33.213	31.779	44.414	1.00	82.00	lite	0
ATOM	1585	OG1	THR	206	32.108	32.629	44.787	1.00	82.00	lite	0
ATOM	1586	CG2	THR	206	34.564	32.280	44.919	1.00	82.00	lite	0
ATOM	1587	C	THR	206	33.192	30.167	42.502	1.00	82.84	lite	0
ATOM	1588	O	THR	206	34.202	29.458	42.452	1.00	82.00	lite	0
ATOM	1589	N	SER	207	31.933	29.745	42.332	1.00	66.90	lite	0
ATOM	1590	CA	SER	207	31.498	28.413	41.950	1.00	66.90	lite	0
ATOM	1591	CB	SER	207	30.093	28.210	42.523	1.00	76.26	lite	0
ATOM	1592	OG	SER	207	29.397	29.466	42.666	1.00	76.26	lite	0
ATOM	1593	C	SER	207	31.502	28.249	40.441	1.00	66.90	lite	0
ATOM	1594	O	SER	207	30.682	28.911	39.794	1.00	76.26	lite	0
ATOM	1595	N	PRO	208	32.389	27.430	39.855	1.00	52.10	lite	0
ATOM	1596	CD	PRO	208	33.262	26.483	40.541	1.00	50.51	lite	0
ATOM	1597	CA	PRO	208	32.519	27.264	38.423	1.00	52.10	lite	0
ATOM	1598	CB	PRO	208	33.598	26.227	38.239	1.00	50.51	lite	0
ATOM	1599	CG	PRO	208	33.497	25.400	39.484	1.00	50.51	lite	0
ATOM	1600	C	PRO	208	31.188	26.838	37.878	1.00	52.10	lite	0
ATOM	1601	O	PRO	208	30.472	26.047	38.502	1.00	50.51	lite	0
ATOM	1602	N	ILE	209	30.875	27.515	36.781	1.00	53.51	lite	0
ATOM	1603	CA	ILE	209	29.649	27.282	36.081	1.00	53.51	lite	0
ATOM	1604	CB	ILE	209	29.238	28.450	35.270	1.00	39.57	lite	0
ATOM	1605	CG2	ILE	209	27.854	28.070	34.804	1.00	39.57	lite	0
ATOM	1606	CG1	ILE	209	29.195	29.762	36.051	1.00	39.57	lite	0

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ATOM	1607	CD1	ILE	209	28.379	30.929	35.438	1.00	39.57	lite	0
ATOM	1608	C	ILE	209	29.924	26.132	35.172	1.00	53.51	lite	0
ATOM	1609	O	ILE	209	30.766	26.177	34.276	1.00	39.57	lite	0
ATOM	1610	N	VAL	210	29.170	25.108	35.520	1.00	32.58	lite	0
ATOM	1611	CA	VAL	210	29.326	23.807	34.928	1.00	32.58	lite	0
ATOM	1612	CB	VAL	210	29.278	22.684	35.957	1.00	62.24	lite	0
ATOM	1613	CG1	VAL	210	30.258	21.659	35.519	1.00	62.24	lite	0
ATOM	1614	CG2	VAL	210	29.646	23.119	37.350	1.00	62.24	lite	0
ATOM	1615	C	VAL	210	28.127	23.630	34.044	1.00	32.58	lite	0
ATOM	1616	O	VAL	210	27.030	24.019	34.465	1.00	62.24	lite	0
ATOM	1617	N	LYS	211	28.345	23.027	32.871	1.00	42.05	lite	0
ATOM	1618	CA	LYS	211	27.282	22.660	31.946	1.00	42.05	lite	0
ATOM	1619	CB	LYS	211	27.061	23.762	30.960	1.00	41.88	lite	0
ATOM	1620	CG	LYS	211	25.685	23.657	30.407	1.00	41.88	lite	0
ATOM	1621	CD	LYS	211	25.002	25.013	30.438	1.00	41.88	lite	0
ATOM	1622	CE	LYS	211	24.922	25.546	31.863	1.00	41.88	lite	0
ATOM	1623	NZ	LYS	211	23.965	26.635	32.000	1.00	41.88	lite	0
ATOM	1624	C	LYS	211	27.792	21.430	31.235	1.00	42.05	lite	0
ATOM	1625	O	LYS	211	28.964	21.414	30.832	1.00	41.88	lite	0
ATOM	1626	N	SER	212	26.981	20.402	31.045	1.00	43.09	lite	0
ATOM	1627	CA	SER	212	27.506	19.161	30.486	1.00	43.09	lite	0
ATOM	1628	CB	SER	212	28.036	18.291	31.599	1.00	70.12	lite	0
ATOM	1629	OG	SER	212	27.228	18.448	32.767	1.00	70.12	lite	0
ATOM	1630	C	SER	212	26.427	18.418	29.763	1.00	43.09	lite	0
ATOM	1631	O	SER	212	25.266	18.858	29.813	1.00	70.12	lite	0
ATOM	1632	N	PHE	213	26.789	17.297	29.136	1.00	52.82	lite	0
ATOM	1633	CA	PHE	213	25.802	16.462	28.467	1.00	52.82	lite	0
ATOM	1634	CB	PHE	213	25.430	17.070	27.075	1.00	65.13	lite	0
ATOM	1635	CG	PHE	213	26.488	16.968	26.011	1.00	65.13	lite	0
ATOM	1636	CD1	PHE	213	26.376	15.989	25.070	1.00	65.13	lite	0
ATOM	1637	CD2	PHE	213	27.567	17.811	26.035	1.00	65.13	lite	0
ATOM	1638	CE1	PHE	213	27.375	15.866	24.147	1.00	65.13	lite	0
ATOM	1639	CE2	PHE	213	28.556	17.673	25.100	1.00	65.13	lite	0
ATOM	1640	CZ	PHE	213	28.466	16.690	24.152	1.00	65.13	lite	0
ATOM	1641	C	PHE	213	26.308	15.028	28.306	1.00	52.82	lite	0
ATOM	1642	O	PHE	213	27.498	14.770	28.535	1.00	65.13	lite	0
ATOM	1643	N	ASN	214	25.353	14.137	27.948	1.00	55.16	lite	0
ATOM	1644	CA	ASN	214	25.555	12.667	27.623	1.00	55.16	lite	0
ATOM	1645	CB	ASN	214	24.194	11.951	27.897	1.00	136.87	lite	0
ATOM	1646	CG	ASN	214	23.010	12.401	27.028	1.00	136.87	lite	0
ATOM	1647	OD1	ASN	214	22.201	13.235	27.447	1.00	136.87	lite	0
ATOM	1648	ND2	ASN	214	22.916	11.980	25.772	1.00	136.87	lite	0
ATOM	1649	C	ASN	214	26.055	12.370	26.181	1.00	55.16	lite	0
ATOM	1650	O	ASN	214	25.316	13.005	25.424	1.00	136.87	lite	0
ATOM	1651	N	ARG	215	27.138	11.593	26.007	1.00	68.72	lite	0
ATOM	1652	CA	ARG	215	27.940	11.682	24.845	1.00	68.72	lite	0
ATOM	1653	CB	ARG	215	28.800	10.589	24.584	1.00	86.26	lite	0
ATOM	1654	CG	ARG	215	28.503	9.176	25.104	1.00	86.26	lite	0
ATOM	1655	CD	ARG	215	27.716	8.459	23.972	1.00	86.26	lite	0
ATOM	1656	NE	ARG	215	28.403	8.530	22.638	1.00	86.26	lite	0
ATOM	1657	CZ	ARG	215	29.660	7.995	22.489	1.00	86.26	lite	0
ATOM	1658	NH1	ARG	215	30.523	7.471	23.590	1.00	86.26	lite	0
ATOM	1659	NH2	ARG	215	29.732	7.370	21.185	1.00	86.26	lite	0
ATOM	1660	C	ARG	215	27.298	11.764	23.526	1.00	68.72	lite	0
ATOM	1661	OT1	ARG	215	26.750	10.734	23.100	1.00	86.26	lite	0
ATOM	1662	OT2	ARG	215	27.221	12.994	23.164	1.00	86.26	lite	0
ATOM	1	CB	GLN	1001	.034	60.423	-2.120	1.00	118.66	heav	0
ATOM	2	CG	GLN	1001	.462	61.828	-2.486	1.00	118.66	heav	0
ATOM	3	CD	GLN	1001	.388	62.773	-3.270	1.00	118.66	heav	0
ATOM	4	OE1	GLN	1001	.604	62.602	-3.294	1.00	118.66	heav	0
ATOM	5	NE2	GLN	1001	.863	63.797	-3.927	1.00	118.66	heav	0
ATOM	6	C	GLN	1001	.507	58.769	-3.447	1.00	73.22	heav	0
ATOM	7	O	GLN	1001	.469	57.760	-4.152	1.00	118.66	heav	0
ATOM	8	N	GLN	1001	.254	58.306	-3.017	1.00	73.22	heav	0
ATOM	9	CA	GLN	1001	.130	59.423	-3.292	1.00	73.22	heav	0
ATOM	10	N	VAL	1002	.640	59.124	-2.822	1.00	2.00	heav	0
ATOM	11	CA	VAL	1002	.917	58.507	-3.188	1.00	2.00	heav	0

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ATOM	12	CB	VAL	1002	.114	59.305	-2.621	1.00	31.62	heav	0
ATOM	13	CG1	VAL	1002	.265	59.217	-3.602	1.00	31.62	heav	0
ATOM	14	CG2	VAL	1002	.805	60.776	-2.473	1.00	31.62	heav	0
ATOM	15	C	VAL	1002	.002	57.077	-2.657	1.00	2.00	heav	0
ATOM	16	O	VAL	1002	.408	56.811	-1.609	1.00	31.62	heav	0
ATOM	17	N	LYS	1003	.647	56.128	-3.336	1.00	29.89	heav	0
ATOM	18	CA	LYS	1003	.868	54.785	-2.832	1.00	29.89	heav	0
ATOM	19	CB	LYS	1003	.973	53.781	-3.504	1.00	49.13	heav	0
ATOM	20	CG	LYS	1003	.600	52.555	-2.694	1.00	49.13	heav	0
ATOM	21	CD	LYS	1003	.226	52.744	-2.013	1.00	49.13	heav	0
ATOM	22	CE	LYS	1003	.975	52.663	-2.950	1.00	49.13	heav	0
ATOM	23	NZ	LYS	1003	.658	52.799	-2.300	1.00	49.13	heav	0
ATOM	24	C	LYS	1003	.306	54.475	-3.230	1.00	29.89	heav	0
ATOM	25	O	LYS	1003	.807	54.948	-4.255	1.00	49.13	heav	0
ATOM	26	N	LEU	1004	.050	53.787	-2.388	1.00	2.00	heav	0
ATOM	27	CA	LEU	1004	.323	53.273	-2.817	1.00	2.00	heav	0
ATOM	28	CB	LEU	1004	.413	53.919	-2.038	1.00	2.00	heav	0
ATOM	29	CG	LEU	1004	.547	55.457	-1.988	1.00	2.00	heav	0
ATOM	30	CD1	LEU	1004	.928	55.786	-1.469	1.00	2.00	heav	0
ATOM	31	CD2	LEU	1004	.658	56.125	-3.329	1.00	2.00	heav	0
ATOM	32	C	LEU	1004	.309	51.756	-2.574	1.00	2.00	heav	0
ATOM	33	O	LEU	1004	.748	51.292	-1.576	1.00	2.00	heav	0
ATOM	34	N	GLN	1005	.817	50.910	-3.467	1.00	2.00	heav	0
ATOM	35	CA	GLN	1005	.806	49.474	-3.272	1.00	2.00	heav	0
ATOM	36	CB	GLN	1005	.763	48.780	-4.139	1.00	76.97	heav	0
ATOM	37	CG	GLN	1005	.752	47.275	-3.852	1.00	76.97	heav	0
ATOM	38	CD	GLN	1005	.600	46.397	-4.365	1.00	76.97	heav	0
ATOM	39	OE1	GLN	1005	.637	46.797	-5.025	1.00	76.97	heav	0
ATOM	40	NE2	GLN	1005	.662	45.106	-4.050	1.00	76.97	heav	0
ATOM	41	C	GLN	1005	.183	49.025	-3.705	1.00	2.00	heav	0
ATOM	42	O	GLN	1005	.697	49.443	-4.748	1.00	76.97	heav	0
ATOM	43	N	GLU	1006	.799	48.333	-2.759	1.00	19.07	heav	0
ATOM	44	CA	GLU	1006	.096	47.728	-2.930	1.00	19.07	heav	0
ATOM	45	CB	GLU	1006	.818	47.483	-1.599	1.00	21.42	heav	0
ATOM	46	CG	GLU	1006	.298	48.706	-0.807	1.00	21.42	heav	0
ATOM	47	CD	GLU	1006	.286	49.458	0.031	1.00	21.42	heav	0
ATOM	48	OE1	GLU	1006	.129	49.081	0.104	1.00	21.42	heav	0
ATOM	49	OE2	GLU	1006	.647	50.427	0.658	1.00	21.42	heav	0
ATOM	50	C	GLU	1006	.814	46.373	-3.533	1.00	19.07	heav	0
ATOM	51	O	GLU	1006	.802	45.765	-3.162	1.00	21.42	heav	0
ATOM	52	N	SER	1007	.622	45.891	-4.471	1.00	2.00	heav	0
ATOM	53	CA	SER	1007	.524	44.508	-4.930	1.00	2.00	heav	0
ATOM	54	CB	SER	1007	.841	44.341	-6.281	1.00	35.69	heav	0
ATOM	55	OG	SER	1007	.223	45.371	-7.178	1.00	35.69	heav	0
ATOM	56	C	SER	1007	.945	44.050	-5.095	1.00	2.00	heav	0
ATOM	57	O	SER	1007	.881	44.819	-5.381	1.00	35.69	heav	0
ATOM	58	N	GLY	1008	.039	42.758	-4.857	1.00	2.00	heav	0
ATOM	59	CA	GLY	1008	.302	42.107	-4.960	1.00	2.00	heav	0
ATOM	60	C	GLY	1008	.171	40.666	-4.523	1.00	2.00	heav	0
ATOM	61	O	GLY	1008	.103	40.221	-4.080	1.00	30.08	heav	0
ATOM	62	N	PRO	1009	.281	39.943	-4.679	1.00	2.00	heav	0
ATOM	63	CD	PRO	1009	.598	40.497	-5.040	1.00	5.89	heav	0
ATOM	64	CA	PRO	1009	.383	38.513	-4.501	1.00	2.00	heav	0
ATOM	65	CB	PRO	1009	.698	38.232	-5.160	1.00	5.89	heav	0
ATOM	66	CG	PRO	1009	.587	39.414	-4.774	1.00	5.89	heav	0
ATOM	67	C	PRO	1009	.320	38.146	-3.037	1.00	2.00	heav	0
ATOM	68	O	PRO	1009	.986	38.830	-2.261	1.00	5.89	heav	0
ATOM	69	N	ALA	1010	.653	37.092	-2.557	1.00	2.00	heav	0
ATOM	70	CA	ALA	1010	.666	36.827	-1.115	1.00	2.00	heav	0
ATOM	71	CB	ALA	1010	.663	35.752	-0.719	1.00	34.58	heav	0
ATOM	72	C	ALA	1010	.024	36.358	-0.650	1.00	2.00	heav	0
ATOM	73	O	ALA	1010	.454	36.600	0.467	1.00	34.58	heav	0
ATOM	74	N	VAL	1011	.732	35.728	-1.564	1.00	28.00	heav	0
ATOM	75	CA	VAL	1011	.949	35.049	-1.204	1.00	28.00	heav	0
ATOM	76	CB	VAL	1011	.607	33.615	-0.814	1.00	21.74	heav	0
ATOM	77	CG1	VAL	1011	.143	32.853	-2.032	1.00	21.74	heav	0
ATOM	78	CG2	VAL	1011	.798	32.968	-0.180	1.00	21.74	heav	0

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ATOM	79	C	VAL	1011	.919	35.070	-2.345	1.00	28.00	heav	0
ATOM	80	O	VAL	1011	.562	34.983	-3.536	1.00	21.74	heav	0
ATOM	81	N	ILE	1012	.153	35.142	-1.905	1.00	2.00	heav	0
ATOM	82	CA	ILE	1012	.169	35.211	-2.889	1.00	2.00	heav	0
ATOM	83	CB	ILE	1012	.234	36.713	-3.223	1.00	27.23	heav	0
ATOM	84	CG2	ILE	1012	.697	37.510	-2.031	1.00	27.23	heav	0
ATOM	85	CG1	ILE	1012	.162	36.924	-4.345	1.00	27.23	heav	0
ATOM	86	CD1	ILE	1012	.409	38.420	-4.541	1.00	27.23	heav	0
ATOM	87	C	ILE	1012	.421	34.564	-2.310	1.00	2.00	heav	0
ATOM	88	O	ILE	1012	.734	34.719	-1.108	1.00	27.23	heav	0
ATOM	89	N	LYS	1013	.084	33.779	-3.198	1.00	16.39	heav	0
ATOM	90	CA	LYS	1013	.356	33.123	-2.875	1.00	16.39	heav	0
ATOM	91	CB	LYS	1013	.917	32.280	-4.001	1.00	53.88	heav	0
ATOM	92	CG	LYS	1013	.342	30.892	-4.182	1.00	53.88	heav	0
ATOM	93	CD	LYS	1013	.897	30.851	-4.650	1.00	53.88	heav	0
ATOM	94	CE	LYS	1013	.721	31.531	-6.021	1.00	53.88	heav	0
ATOM	95	NZ	LYS	1013	.740	32.621	-6.012	1.00	53.88	heav	0
ATOM	96	C	LYS	1013	.411	34.160	-2.584	1.00	16.39	heav	0
ATOM	97	O	LYS	1013	.471	35.193	-3.249	1.00	53.88	heav	0
ATOM	98	N	PRO	1014	.200	33.949	-1.561	1.00	2.00	heav	0
ATOM	99	CD	PRO	1014	.917	33.032	-0.467	1.00	23.56	heav	0
ATOM	100	CA	PRO	1014	55.356	34.779	-1.297	1.00	2.00	heav	0
ATOM	101	CB	PRO	1014	55.999	34.108	-0.115	1.00	23.56	heav	0
ATOM	102	CG	PRO	1014	55.307	32.769	0.022	1.00	23.56	heav	0
ATOM	103	C	PRO	1014	56.249	34.923	-2.505	1.00	2.00	heav	0
ATOM	104	O	PRO	1014	56.395	34.013	-3.329	1.00	23.56	heav	0
ATOM	105	N	SER	1015	56.753	36.152	-2.597	1.00	43.64	heav	0
ATOM	106	CA	SER	1015	57.601	36.613	-3.675	1.00	43.64	heav	0
ATOM	107	CB	SER	1015	58.813	35.742	-3.728	1.00	45.02	heav	0
ATOM	108	OG	SER	1015	59.389	35.843	-2.431	1.00	45.02	heav	0
ATOM	109	C	SER	1015	56.876	36.602	-4.993	1.00	43.64	heav	0
ATOM	110	O	SER	1015	57.231	35.914	-5.927	1.00	45.02	heav	0
ATOM	111	N	GLN	1016	55.812	37.389	-5.055	1.00	2.00	heav	0
ATOM	112	CA	GLN	1016	54.973	37.594	-6.212	1.00	2.00	heav	0
ATOM	113	CB	GLN	1016	53.789	36.694	-6.241	1.00	55.71	heav	0
ATOM	114	CG	GLN	1016	54.022	35.296	-6.727	1.00	55.71	heav	0
ATOM	115	CD	GLN	1016	52.672	34.630	-6.865	1.00	55.71	heav	0
ATOM	116	OE1	GLN	1016	52.294	34.141	-7.916	1.00	55.71	heav	0
ATOM	117	NE2	GLN	1016	51.814	34.604	-5.864	1.00	55.71	heav	0
ATOM	118	C	GLN	1016	54.462	39.007	-6.025	1.00	2.00	heav	0
ATOM	119	O	GLN	1016	54.646	39.628	-4.966	1.00	55.71	heav	0
ATOM	120	N	SER	1017	53.910	39.526	-7.123	1.00	2.00	heav	0
ATOM	121	CA	SER	1017	53.404	40.872	-7.159	1.00	2.00	heav	0
ATOM	122	CB	SER	1017	53.544	41.370	-8.559	1.00	44.81	heav	0
ATOM	123	OG	SER	1017	52.898	40.440	-9.393	1.00	44.81	heav	0
ATOM	124	C	SER	1017	51.967	41.050	-6.673	1.00	2.00	heav	0
ATOM	125	O	SER	1017	51.017	40.514	-7.253	1.00	44.81	heav	0
ATOM	126	N	LEU	1018	51.792	41.767	-5.574	1.00	2.00	heav	0
ATOM	127	CA	LEU	1018	50.496	42.158	-5.108	1.00	2.00	heav	0
ATOM	128	CB	LEU	1018	50.653	42.547	-3.685	1.00	2.00	heav	0
ATOM	129	CG	LEU	1018	49.507	43.223	-3.016	1.00	2.00	heav	0
ATOM	130	CD1	LEU	1018	48.257	42.448	-3.232	1.00	2.00	heav	0
ATOM	131	CD2	LEU	1018	49.809	43.295	-1.538	1.00	2.00	heav	0
ATOM	132	C	LEU	1018	50.014	43.345	-5.953	1.00	2.00	heav	0
ATOM	133	O	LEU	1018	50.738	44.352	-6.159	1.00	2.00	heav	0
ATOM	134	N	SER	1019	48.797	43.302	-6.465	1.00	2.00	heav	0
ATOM	135	CA	SER	1019	48.322	44.470	-7.173	1.00	2.00	heav	0
ATOM	136	CB	SER	1019	48.456	44.260	-8.650	1.00	19.50	heav	0
ATOM	137	OG	SER	1019	48.258	42.876	-8.921	1.00	19.50	heav	0
ATOM	138	C	SER	1019	46.900	44.660	-6.778	1.00	2.00	heav	0
ATOM	139	O	SER	1019	46.071	43.759	-6.839	1.00	19.50	heav	0
ATOM	140	N	LEU	1020	46.666	45.789	-6.188	1.00	2.00	heav	0
ATOM	141	CA	LEU	1020	45.342	46.056	-5.740	1.00	2.00	heav	0
ATOM	142	CB	LEU	1020	45.452	46.521	-4.377	1.00	2.00	heav	0
ATOM	143	CG	LEU	1020	45.793	45.422	-3.455	1.00	2.00	heav	0
ATOM	144	CD1	LEU	1020	46.659	45.988	-2.373	1.00	2.00	heav	0
ATOM	145	CD2	LEU	1020	44.564	44.827	-2.873	1.00	2.00	heav	0

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ATOM	146	C	LEU	1020	44.740	47.092	-6.620	1.00	2.00	heav	0
ATOM	147	O	LEU	1020	45.540	47.731	-7.305	1.00	2.00	heav	0
ATOM	148	N	THR	1021	43.406	47.228	-6.574	1.00	20.40	heav	0
ATOM	149	CA	THR	1021	42.652	48.206	-7.330	1.00	20.40	heav	0
ATOM	150	CB	THR	1021	41.932	47.524	-8.471	1.00	27.68	heav	0
ATOM	151	OG1	THR	1021	42.970	46.923	-9.238	1.00	27.68	heav	0
ATOM	152	CG2	THR	1021	41.068	48.459	-9.312	1.00	27.68	heav	0
ATOM	153	C	THR	1021	41.632	48.852	-6.414	1.00	20.40	heav	0
ATOM	154	O	THR	1021	40.965	48.159	-5.638	1.00	27.68	heav	0
ATOM	155	N	CYS	1022	41.573	50.181	-6.475	1.00	2.00	heav	0
ATOM	156	CA	CYS	1022	40.649	50.950	-5.688	1.00	2.00	heav	0
ATOM	157	C	CYS	1022	39.706	51.577	-6.674	1.00	2.00	heav	0
ATOM	158	O	CYS	1022	40.199	52.283	-7.546	1.00	2.00	heav	0
ATOM	159	CB	CYS	1022	41.312	52.058	-4.970	1.00	2.00	heav	0
ATOM	160	SG	CYS	1022	39.950	52.974	-4.214	1.00	2.00	heav	0
ATOM	161	N	ILE	1023	38.395	51.450	-6.539	1.00	19.11	heav	0
ATOM	162	CA	ILE	1023	37.461	51.903	-7.549	1.00	19.11	heav	0
ATOM	163	CB	ILE	1023	36.573	50.757	-7.871	1.00	19.13	heav	0
ATOM	164	CG2	ILE	1023	35.634	51.235	-8.954	1.00	19.13	heav	0
ATOM	165	CG1	ILE	1023	37.387	49.527	-8.257	1.00	19.13	heav	0
ATOM	166	CD1	ILE	1023	36.602	48.219	-8.505	1.00	19.13	heav	0
ATOM	167	C	ILE	1023	36.643	53.058	-7.066	1.00	19.11	heav	0
ATOM	168	O	ILE	1023	35.654	52.817	-6.387	1.00	19.13	heav	0
ATOM	169	N	VAL	1024	36.975	54.303	-7.356	1.00	23.21	heav	0
ATOM	170	CA	VAL	1024	36.186	55.415	-6.838	1.00	23.21	heav	0
ATOM	171	CB	VAL	1024	36.673	56.792	-7.163	1.00	20.17	heav	0
ATOM	172	CG1	VAL	1024	35.831	57.788	-6.395	1.00	20.17	heav	0
ATOM	173	CG2	VAL	1024	38.104	56.928	-6.808	1.00	20.17	heav	0
ATOM	174	C	VAL	1024	34.914	55.313	-7.596	1.00	23.21	heav	0
ATOM	175	O	VAL	1024	34.917	54.977	-8.774	1.00	20.17	heav	0
ATOM	176	N	SER	1025	33.821	55.654	-6.979	1.00	32.07	heav	0
ATOM	177	CA	SER	1025	32.574	55.534	-7.659	1.00	32.07	heav	0
ATOM	178	CB	SER	1025	31.983	54.227	-7.251	1.00	36.86	heav	0
ATOM	179	OG	SER	1025	30.766	54.158	-7.945	1.00	36.86	heav	0
ATOM	180	C	SER	1025	31.762	56.719	-7.201	1.00	32.07	heav	0
ATOM	181	O	SER	1025	31.853	57.174	-6.057	1.00	36.86	heav	0
ATOM	182	N	GLY	1026	31.058	57.293	-8.161	1.00	2.00	heav	0
ATOM	183	CA	GLY	1026	30.182	58.390	-7.836	1.00	2.00	heav	0
ATOM	184	C	GLY	1026	30.878	59.704	-7.502	1.00	2.00	heav	0
ATOM	185	O	GLY	1026	30.328	60.567	-6.806	1.00	46.56	heav	0
ATOM	186	N	PHE	1027	32.074	59.848	-8.066	1.00	22.13	heav	0
ATOM	187	CA	PHE	1027	32.914	61.025	-7.912	1.00	22.13	heav	0
ATOM	188	CB	PHE	1027	33.298	61.197	-6.473	1.00	20.64	heav	0
ATOM	189	CG	PHE	1027	34.014	62.466	-6.099	1.00	20.64	heav	0
ATOM	190	CD1	PHE	1027	33.319	63.397	-5.358	1.00	20.64	heav	0
ATOM	191	CD2	PHE	1027	35.358	62.639	-6.398	1.00	20.64	heav	0
ATOM	192	CE1	PHE	1027	33.991	64.516	-4.898	1.00	20.64	heav	0
ATOM	193	CE2	PHE	1027	36.010	63.753	-5.931	1.00	20.64	heav	0
ATOM	194	CZ	PHE	1027	35.331	64.690	-5.181	1.00	20.64	heav	0
ATOM	195	C	PHE	1027	34.147	60.681	-8.758	1.00	22.13	heav	0
ATOM	196	O	PHE	1027	34.510	59.498	-8.864	1.00	20.64	heav	0
ATOM	197	N	SER	1028	34.776	61.666	-9.410	1.00	32.77	heav	0
ATOM	198	CA	SER	1028	35.905	61.396	-10.277	1.00	32.77	heav	0
ATOM	199	CB	SER	1028	35.858	62.338	-11.471	1.00	66.52	heav	0
ATOM	200	OG	SER	1028	37.126	62.560	-12.075	1.00	66.52	heav	0
ATOM	201	C	SER	1028	37.231	61.549	-9.584	1.00	32.77	heav	0
ATOM	202	O	SER	1028	37.389	62.472	-8.780	1.00	66.52	heav	0
ATOM	203	N	ILE	1029	38.151	60.673	-9.999	1.00	26.14	heav	0
ATOM	204	CA	ILE	1029	39.541	60.733	-9.614	1.00	26.14	heav	0
ATOM	205	CB	ILE	1029	40.382	59.835	-10.498	1.00	40.76	heav	0
ATOM	206	CG2	ILE	1029	41.864	60.086	-10.255	1.00	40.76	heav	0
ATOM	207	CG1	ILE	1029	40.071	58.425	-10.226	1.00	40.76	heav	0
ATOM	208	CD1	ILE	1029	40.849	57.570	-11.256	1.00	40.76	heav	0
ATOM	209	C	ILE	1029	40.059	62.176	-9.803	1.00	26.14	heav	0
ATOM	210	O	ILE	1029	40.734	62.699	-8.900	1.00	40.76	heav	0
ATOM	211	N	THR	1030	39.743	62.827	-10.954	1.00	48.89	heav	0
ATOM	212	CA	THR	1030	40.285	64.132	-11.327	1.00	48.89	heav	0

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ATOM	213	CB	THR	1030	40.457	64.198	-12.884	1.00	50.80	heav	0
ATOM	214	OG1	THR	1030	39.307	63.614	-13.487	1.00	50.80	heav	0
ATOM	215	OG2	THR	1030	41.642	63.394	-13.387	1.00	50.80	heav	0
ATOM	216	C	THR	1030	39.578	65.395	-10.873	1.00	48.89	heav	0
ATOM	217	O	THR	1030	40.001	66.463	-11.338	1.00	50.80	heav	0
ATOM	218	N	ARG	1031	38.540	65.400	-10.003	1.00	17.91	heav	0
ATOM	219	CA	ARG	1031	38.020	66.690	-9.551	1.00	17.91	heav	0
ATOM	220	CB	ARG	1031	36.862	66.582	-8.586	1.00	66.82	heav	0
ATOM	221	CG	ARG	1031	35.808	67.508	-9.184	1.00	66.82	heav	0
ATOM	222	CD	ARG	1031	34.646	67.952	-8.294	1.00	66.82	heav	0
ATOM	223	NE	ARG	1031	35.066	69.045	-7.418	1.00	66.82	heav	0
ATOM	224	CZ	ARG	1031	34.334	69.480	-6.363	1.00	66.82	heav	0
ATOM	225	NH1	ARG	1031	33.147	68.925	-6.053	1.00	66.82	heav	0
ATOM	226	NH2	ARG	1031	34.821	70.468	-5.580	1.00	66.82	heav	0
ATOM	227	C	ARG	1031	39.203	67.316	-8.836	1.00	17.91	heav	0
ATOM	228	O	ARG	1031	40.018	66.631	-8.194	1.00	66.82	heav	0
ATOM	229	N	THR	1032	39.394	68.608	-9.002	1.00	2.00	heav	0
ATOM	230	CA	THR	1032	40.587	69.151	-8.417	1.00	2.00	heav	0
ATOM	231	CB	THR	1032	40.842	70.597	-8.958	1.00	39.87	heav	0
ATOM	232	OG1	THR	1032	40.178	71.544	-8.133	1.00	39.87	heav	0
ATOM	233	CG2	THR	1032	40.366	70.726	-10.407	1.00	39.87	heav	0
ATOM	234	C	THR	1032	40.504	69.134	-6.904	1.00	2.00	heav	0
ATOM	235	O	THR	1032	39.440	69.201	-6.285	1.00	39.87	heav	0
ATOM	236	N	ASN	1033	41.722	69.112	-6.374	1.00	57.95	heav	0
ATOM	237	CA	ASN	1033	42.109	69.165	-4.966	1.00	57.95	heav	0
ATOM	238	CB	ASN	1033	41.178	69.986	-4.104	1.00	56.35	heav	0
ATOM	239	CG	ASN	1033	40.897	71.344	-4.713	1.00	56.35	heav	0
ATOM	240	OD1	ASN	1033	41.773	71.995	-5.298	1.00	56.35	heav	0
ATOM	241	ND2	ASN	1033	39.624	71.729	-4.637	1.00	56.35	heav	0
ATOM	242	C	ASN	1033	42.212	67.850	-4.240	1.00	57.95	heav	0
ATOM	243	O	ASN	1033	42.918	67.745	-3.238	1.00	56.35	heav	0
ATOM	244	N	TYR	1034	41.488	66.849	-4.676	1.00	33.81	heav	0
ATOM	245	CA	TYR	1034	41.490	65.569	-4.028	1.00	33.81	heav	0
ATOM	246	CB	TYR	1034	40.307	64.799	-4.469	1.00	55.62	heav	0
ATOM	247	CG	TYR	1034	39.110	65.509	-3.878	1.00	55.62	heav	0
ATOM	248	CD1	TYR	1034	38.598	66.674	-4.410	1.00	55.62	heav	0
ATOM	249	CE1	TYR	1034	37.490	67.280	-3.848	1.00	55.62	heav	0
ATOM	250	CD2	TYR	1034	38.514	64.961	-2.790	1.00	55.62	heav	0
ATOM	251	CE2	TYR	1034	37.409	65.552	-2.229	1.00	55.62	heav	0
ATOM	252	CZ	TYR	1034	36.887	66.705	-2.753	1.00	55.62	heav	0
ATOM	253	OH	TYR	1034	35.731	67.235	-2.203	1.00	55.62	heav	0
ATOM	254	C	TYR	1034	42.736	64.844	-4.396	1.00	33.81	heav	0
ATOM	255	O	TYR	1034	43.225	64.990	-5.513	1.00	55.62	heav	0
ATOM	256	N	CYS	1035	43.330	64.162	-3.431	1.00	42.62	heav	0
ATOM	257	CA	CYS	1035	44.452	63.274	-3.702	1.00	42.62	heav	0
ATOM	258	C	CYS	1035	43.920	61.923	-3.253	1.00	42.62	heav	0
ATOM	259	O	CYS	1035	43.114	61.876	-2.322	1.00	15.84	heav	0
ATOM	260	CB	CYS	1035	45.675	63.674	-2.891	1.00	15.84	heav	0
ATOM	261	SG	CYS	1035	46.626	65.177	-3.275	1.00	15.84	heav	0
ATOM	262	N	TRP	1036	44.290	60.798	-3.844	1.00	2.00	heav	0
ATOM	263	CA	TRP	1036	43.691	59.495	-3.510	1.00	2.00	heav	0
ATOM	264	CB	TRP	1036	43.142	58.934	-4.811	1.00	2.00	heav	0
ATOM	265	CG	TRP	1036	42.060	59.911	-5.291	1.00	2.00	heav	0
ATOM	266	CD2	TRP	1036	40.734	59.746	-5.055	1.00	2.00	heav	0
ATOM	267	CE2	TRP	1036	40.197	60.904	-5.616	1.00	2.00	heav	0
ATOM	268	CE3	TRP	1036	39.992	58.782	-4.460	1.00	2.00	heav	0
ATOM	269	CD1	TRP	1036	42.325	61.111	-5.971	1.00	2.00	heav	0
ATOM	270	NE1	TRP	1036	41.158	61.699	-6.145	1.00	2.00	heav	0
ATOM	271	CZ2	TRP	1036	38.852	61.117	-5.594	1.00	2.00	heav	0
ATOM	272	CZ3	TRP	1036	38.649	58.992	-4.432	1.00	2.00	heav	0
ATOM	273	CH2	TRP	1036	38.101	60.133	-4.990	1.00	2.00	heav	0
ATOM	274	C	TRP	1036	44.759	58.640	-2.874	1.00	2.00	heav	0
ATOM	275	O	TRP	1036	45.861	58.550	-3.423	1.00	2.00	heav	0
ATOM	276	N	HIS	1037	44.557	58.168	-1.647	1.00	2.00	heav	0
ATOM	277	CA	HIS	1037	45.610	57.433	-0.970	1.00	2.00	heav	0
ATOM	278	CB	HIS	1037	45.787	57.765	0.399	1.00	2.00	heav	0
ATOM	279	CG	HIS	1037	46.163	59.178	0.589	1.00	2.00	heav	0

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ATOM	280	CD2	HIS	1037	45.280	60.164	0.348	1.00	2.00	heav	0
ATOM	281	ND1	HIS	1037	47.312	59.694	1.059	1.00	2.00	heav	0
ATOM	282	CE1	HIS	1037	47.141	60.977	1.122	1.00	2.00	heav	0
ATOM	283	NE2	HIS	1037	45.923	61.225	0.693	1.00	2.00	heav	0
ATOM	284	C	HIS	1037	45.425	55.957	-0.839	1.00	2.00	heav	0
ATOM	285	O	HIS	1037	44.272	55.567	-1.003	1.00	2.00	heav	0
ATOM	286	N	TRP	1038	46.490	55.192	-0.486	1.00	2.00	heav	0
ATOM	287	CA	TRP	1038	46.445	53.776	-0.086	1.00	2.00	heav	0
ATOM	288	CB	TRP	1038	47.300	52.884	-0.949	1.00	2.00	heav	0
ATOM	289	CG	TRP	1038	46.738	52.483	-2.307	1.00	2.00	heav	0
ATOM	290	CD2	TRP	1038	45.732	51.573	-2.570	1.00	2.00	heav	0
ATOM	291	CE2	TRP	1038	45.629	51.661	-3.957	1.00	2.00	heav	0
ATOM	292	CE3	TRP	1038	44.915	50.726	-1.878	1.00	2.00	heav	0
ATOM	293	CD1	TRP	1038	47.214	53.067	-3.457	1.00	2.00	heav	0
ATOM	294	NE1	TRP	1038	46.500	52.541	-4.440	1.00	2.00	heav	0
ATOM	295	CZ2	TRP	1038	44.742	50.935	-4.686	1.00	2.00	heav	0
ATOM	296	CZ3	TRP	1038	44.005	49.983	-2.594	1.00	2.00	heav	0
ATOM	297	CH2	TRP	1038	43.919	50.084	-3.966	1.00	2.00	heav	0
ATOM	298	C	TRP	1038	47.055	53.701	1.319	1.00	2.00	heav	0
ATOM	299	O	TRP	1038	48.143	54.298	1.632	1.00	2.00	heav	0
ATOM	300	N	ILE	1039	46.279	52.986	2.149	1.00	2.00	heav	0
ATOM	301	CA	ILE	1039	46.639	52.709	3.537	1.00	2.00	heav	0
ATOM	302	CB	ILE	1039	45.792	53.493	4.458	1.00	2.00	heav	0
ATOM	303	CG2	ILE	1039	46.157	53.218	5.911	1.00	2.00	heav	0
ATOM	304	CG1	ILE	1039	45.996	54.937	4.114	1.00	2.00	heav	0
ATOM	305	CD1	ILE	1039	44.672	55.575	4.387	1.00	2.00	heav	0
ATOM	306	C	ILE	1039	46.392	51.262	3.842	1.00	2.00	heav	0
ATOM	307	O	ILE	1039	45.321	50.727	3.554	1.00	2.00	heav	0
ATOM	308	N	ARG	1040	47.321	50.681	4.551	1.00	2.00	heav	0
ATOM	309	CA	ARG	1040	47.318	49.252	4.837	1.00	2.00	heav	0
ATOM	310	CB	ARG	1040	48.581	48.812	4.099	1.00	19.66	heav	0
ATOM	311	CG	ARG	1040	49.257	47.496	4.174	1.00	19.66	heav	0
ATOM	312	CD	ARG	1040	50.474	47.457	5.059	1.00	19.66	heav	0
ATOM	313	NE	ARG	1040	51.828	47.573	4.517	1.00	19.66	heav	0
ATOM	314	CZ	ARG	1040	52.498	46.653	3.817	1.00	19.66	heav	0
ATOM	315	NH1	ARG	1040	52.026	45.480	3.468	1.00	19.66	heav	0
ATOM	316	NH2	ARG	1040	53.766	46.854	3.567	1.00	19.66	heav	0
ATOM	317	C	ARG	1040	47.292	49.084	6.359	1.00	2.00	heav	0
ATOM	318	O	ARG	1040	47.706	50.011	7.057	1.00	19.66	heav	0
ATOM	319	N	GLN	1041	46.791	48.047	7.001	1.00	2.00	heav	0
ATOM	320	CA	GLN	1041	46.952	47.895	8.435	1.00	2.00	heav	0
ATOM	321	CB	GLN	1041	45.719	48.316	9.152	1.00	2.00	heav	0
ATOM	322	CG	GLN	1041	45.397	47.706	10.483	1.00	2.00	heav	0
ATOM	323	CD	GLN	1041	44.142	48.315	11.053	1.00	2.00	heav	0
ATOM	324	OE1	GLN	1041	43.038	48.272	10.503	1.00	2.00	heav	0
ATOM	325	NE2	GLN	1041	44.229	48.934	12.190	1.00	2.00	heav	0
ATOM	326	C	GLN	1041	47.150	46.402	8.565	1.00	2.00	heav	0
ATOM	327	O	GLN	1041	46.258	45.599	8.212	1.00	2.00	heav	0
ATOM	328	N	ALA	1042	48.402	46.083	8.977	1.00	10.15	heav	0
ATOM	329	CA	ALA	1042	48.845	44.713	9.204	1.00	10.15	heav	0
ATOM	330	CB	ALA	1042	50.271	44.781	9.556	1.00	2.00	heav	0
ATOM	331	C	ALA	1042	48.027	44.168	10.380	1.00	10.15	heav	0
ATOM	332	O	ALA	1042	47.903	44.995	11.274	1.00	2.00	heav	0
ATOM	333	N	PRO	1043	47.432	42.962	10.557	1.00	18.11	heav	0
ATOM	334	CD	PRO	1043	47.970	41.731	10.015	1.00	34.16	heav	0
ATOM	335	CA	PRO	1043	46.547	42.580	11.674	1.00	18.11	heav	0
ATOM	336	CB	PRO	1043	46.390	41.095	11.605	1.00	34.16	heav	0
ATOM	337	CG	PRO	1043	46.845	40.756	10.227	1.00	34.16	heav	0
ATOM	338	C	PRO	1043	47.085	42.982	13.056	1.00	18.11	heav	0
ATOM	339	O	PRO	1043	48.311	42.949	13.297	1.00	34.16	heav	0
ATOM	340	N	GLY	1044	46.180	43.453	13.931	1.00	41.26	heav	0
ATOM	341	CA	GLY	1044	46.561	43.893	15.275	1.00	41.26	heav	0
ATOM	342	C	GLY	1044	47.644	44.981	15.347	1.00	41.26	heav	0
ATOM	343	O	GLY	1044	48.339	45.106	16.357	1.00	37.31	heav	0
ATOM	344	N	LYS	1045	47.843	45.776	14.295	1.00	2.00	heav	0
ATOM	345	CA	LYS	1045	48.778	46.873	14.330	1.00	2.00	heav	0
ATOM	346	CB	LYS	1045	49.990	46.611	13.465	1.00	40.76	heav	0

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ATOM	347	CG	LYS	1045	50.862	45.460	13.848	1.00	40.76	heav	0
ATOM	348	CD	LYS	1045	52.201	46.001	13.393	1.00	40.76	heav	0
ATOM	349	CE	LYS	1045	53.157	44.895	12.956	1.00	40.76	heav	0
ATOM	350	NZ	LYS	1045	53.231	43.812	13.926	1.00	40.76	heav	0
ATOM	351	C	LYS	1045	48.093	48.127	13.834	1.00	2.00	heav	0
ATOM	352	O	LYS	1045	46.873	48.173	13.671	1.00	40.76	heav	0
ATOM	353	N	GLY	1046	48.881	49.163	13.592	1.00	30.06	heav	0
ATOM	354	CA	GLY	1046	48.359	50.462	13.233	1.00	30.06	heav	0
ATOM	355	C	GLY	1046	48.214	50.653	11.760	1.00	30.06	heav	0
ATOM	356	O	GLY	1046	48.598	49.814	10.958	1.00	7.98	heav	0
ATOM	357	N	LEU	1047	47.556	51.743	11.428	1.00	12.94	heav	0
ATOM	358	CA	LEU	1047	47.391	52.111	10.036	1.00	12.94	heav	0
ATOM	359	CB	LEU	1047	46.583	53.348	9.901	1.00	2.00	heav	0
ATOM	360	CG	LEU	1047	45.300	53.199	10.641	1.00	2.00	heav	0
ATOM	361	CD1	LEU	1047	44.819	54.557	11.108	1.00	2.00	heav	0
ATOM	362	CD2	LEU	1047	44.319	52.474	9.754	1.00	2.00	heav	0
ATOM	363	C	LEU	1047	48.771	52.439	9.531	1.00	12.94	heav	0
ATOM	364	O	LEU	1047	49.509	52.994	10.326	1.00	2.00	heav	0
ATOM	365	N	GLU	1048	49.226	52.091	8.337	1.00	2.00	heav	0
ATOM	366	CA	GLU	1048	50.427	52.681	7.773	1.00	2.00	heav	0
ATOM	367	CB	GLU	1048	51.553	51.710	7.845	1.00	35.86	heav	0
ATOM	368	CG	GLU	1048	51.620	50.546	6.896	1.00	35.86	heav	0
ATOM	369	CD	GLU	1048	52.948	49.820	7.109	1.00	35.86	heav	0
ATOM	370	OE1	GLU	1048	53.948	50.216	6.461	1.00	35.86	heav	0
ATOM	371	OE2	GLU	1048	52.957	48.896	7.956	1.00	35.86	heav	0
ATOM	372	C	GLU	1048	50.145	53.097	6.309	1.00	2.00	heav	0
ATOM	373	O	GLU	1048	49.400	52.505	5.503	1.00	35.86	heav	0
ATOM	374	N	TRP	1049	50.650	54.314	6.126	1.00	2.00	heav	0
ATOM	375	CA	TRP	1049	50.443	55.073	4.910	1.00	2.00	heav	0
ATOM	376	CB	TRP	1049	50.850	56.505	5.078	1.00	2.00	heav	0
ATOM	377	CG	TRP	1049	50.353	57.306	3.922	1.00	2.00	heav	0
ATOM	378	CD2	TRP	1049	51.163	57.883	3.032	1.00	2.00	heav	0
ATOM	379	CE2	TRP	1049	50.255	58.446	2.152	1.00	2.00	heav	0
ATOM	380	CE3	TRP	1049	52.527	57.941	2.924	1.00	2.00	heav	0
ATOM	381	CD1	TRP	1049	49.037	57.475	3.659	1.00	2.00	heav	0
ATOM	382	NE1	TRP	1049	49.011	58.175	2.561	1.00	2.00	heav	0
ATOM	383	CZ2	TRP	1049	50.774	59.121	1.094	1.00	2.00	heav	0
ATOM	384	CZ3	TRP	1049	53.042	58.615	1.854	1.00	2.00	heav	0
ATOM	385	CH2	TRP	1049	52.169	59.196	0.962	1.00	2.00	heav	0
ATOM	386	C	TRP	1049	51.279	54.503	3.829	1.00	2.00	heav	0
ATOM	387	O	TRP	1049	52.401	54.112	4.144	1.00	2.00	heav	0
ATOM	388	N	MET	1050	50.789	54.462	2.597	1.00	2.00	heav	0
ATOM	389	CA	MET	1050	51.664	53.828	1.656	1.00	2.00	heav	0
ATOM	390	CB	MET	1050	51.062	52.599	1.081	1.00	2.00	heav	0
ATOM	391	CG	MET	1050	50.976	51.534	2.153	1.00	2.00	heav	0
ATOM	392	SD	MET	1050	50.163	50.126	1.358	1.00	2.00	heav	0
ATOM	393	CE	MET	1050	51.608	49.076	1.484	1.00	2.00	heav	0
ATOM	394	C	MET	1050	52.060	54.691	0.528	1.00	2.00	heav	0
ATOM	395	O	MET	1050	53.173	54.489	0.009	1.00	2.00	heav	0
ATOM	396	N	GLY	1051	51.143	55.606	0.220	1.00	23.56	heav	0
ATOM	397	CA	GLY	1051	51.349	56.485	-0.898	1.00	23.56	heav	0
ATOM	398	C	GLY	1051	50.044	57.131	-1.300	1.00	23.56	heav	0
ATOM	399	O	GLY	1051	49.008	56.690	-0.767	1.00	22.91	heav	0
ATOM	400	N	ARG	1052	50.108	58.240	-2.085	1.00	2.00	heav	0
ATOM	401	CA	ARG	1052	48.928	58.938	-2.646	1.00	2.00	heav	0
ATOM	402	CB	ARG	1052	48.571	60.301	-2.017	1.00	2.00	heav	0
ATOM	403	CG	ARG	1052	49.663	61.319	-2.172	1.00	2.00	heav	0
ATOM	404	CD	ARG	1052	49.412	62.701	-1.541	1.00	2.00	heav	0
ATOM	405	NE	ARG	1052	50.644	63.410	-1.954	1.00	2.00	heav	0
ATOM	406	CZ	ARG	1052	51.430	64.031	-1.042	1.00	2.00	heav	0
ATOM	407	NH1	ARG	1052	51.085	64.044	0.251	1.00	2.00	heav	0
ATOM	408	NH2	ARG	1052	52.638	64.538	-1.345	1.00	2.00	heav	0
ATOM	409	C	ARG	1052	49.162	59.299	-4.083	1.00	2.00	heav	0
ATOM	410	O	ARG	1052	50.302	59.461	-4.520	1.00	2.00	heav	0
ATOM	411	N	ILE	1053	48.084	59.473	-4.801	1.00	8.01	heav	0
ATOM	412	CA	ILE	1053	48.165	59.930	-6.159	1.00	8.01	heav	0
ATOM	413	CB	ILE	1053	47.875	58.696	-7.035	1.00	12.85	heav	0

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ATOM	414	CG2	ILE	1053	46.706	57.827	-6.632	1.00	12.85	heav	0
ATOM	415	CG1	ILE	1053	47.626	59.260	-8.389	1.00	12.85	heav	0
ATOM	416	CD1	ILE	1053	47.712	58.118	-9.417	1.00	12.85	heav	0
ATOM	417	C	ILE	1053	47.163	61.066	-6.249	1.00	8.01	heav	0
ATOM	418	O	ILE	1053	45.958	60.857	-6.092	1.00	12.85	heav	0
ATOM	419	N	CYS	1054	47.606	62.305	-6.386	1.00	10.52	heav	0
ATOM	420	CA	CYS	1054	46.705	63.444	-6.409	1.00	10.52	heav	0
ATOM	421	C	CYS	1054	45.952	63.600	-7.698	1.00	10.52	heav	0
ATOM	422	O	CYS	1054	46.578	63.390	-8.712	1.00	19.18	heav	0
ATOM	423	CB	CYS	1054	47.492	64.671	-6.130	1.00	19.18	heav	0
ATOM	424	SG	CYS	1054	48.043	64.354	-4.458	1.00	19.18	heav	0
ATOM	425	N	TYR	1055	44.679	63.980	-7.707	1.00	50.31	heav	0
ATOM	426	CA	TYR	1055	43.820	64.180	-8.873	1.00	50.31	heav	0
ATOM	427	CB	TYR	1055	42.784	65.273	-8.590	1.00	52.92	heav	0
ATOM	428	CG	TYR	1055	43.332	66.686	-8.711	1.00	52.92	heav	0
ATOM	429	CD1	TYR	1055	43.058	67.386	-9.850	1.00	52.92	heav	0
ATOM	430	CE1	TYR	1055	43.567	68.642	-10.029	1.00	52.92	heav	0
ATOM	431	CD2	TYR	1055	44.121	67.245	-7.736	1.00	52.92	heav	0
ATOM	432	CE2	TYR	1055	44.634	68.505	-7.904	1.00	52.92	heav	0
ATOM	433	CZ	TYR	1055	44.348	69.190	-9.056	1.00	52.92	heav	0
ATOM	434	OH	TYR	1055	44.835	70.452	-9.278	1.00	52.92	heav	0
ATOM	435	C	TYR	1055	44.496	64.541	-10.179	1.00	50.31	heav	0
ATOM	436	O	TYR	1055	44.100	64.100	-11.238	1.00	52.92	heav	0
ATOM	437	N	GLU	1056	45.474	65.413	-10.173	1.00	2.00	heav	0
ATOM	438	CA	GLU	1056	46.195	65.660	-11.394	1.00	2.00	heav	0
ATOM	439	CB	GLU	1056	46.586	67.100	-11.430	1.00	26.63	heav	0
ATOM	440	CG	GLU	1056	47.159	67.682	-10.172	1.00	26.63	heav	0
ATOM	441	CD	GLU	1056	48.381	67.008	-9.622	1.00	26.63	heav	0
ATOM	442	OE1	GLU	1056	48.241	65.979	-8.961	1.00	26.63	heav	0
ATOM	443	OE2	GLU	1056	49.456	67.539	-9.878	1.00	26.63	heav	0
ATOM	444	C	GLU	1056	47.439	64.786	-11.576	1.00	2.00	heav	0
ATOM	445	O	GLU	1056	48.468	65.297	-11.990	1.00	26.63	heav	0
ATOM	446	N	GLY	1057	47.513	63.529	-11.161	1.00	2.00	heav	0
ATOM	447	CA	GLY	1057	48.674	62.682	-11.402	1.00	2.00	heav	0
ATOM	448	C	GLY	1057	49.889	62.795	-10.501	1.00	2.00	heav	0
ATOM	449	O	GLY	1057	50.718	61.908	-10.670	1.00	2.00	heav	0
ATOM	450	N	SER	1058	50.164	63.735	-9.576	1.00	2.00	heav	0
ATOM	451	CA	SER	1058	51.392	63.674	-8.747	1.00	2.00	heav	0
ATOM	452	CB	SER	1058	51.612	64.917	-7.898	1.00	19.19	heav	0
ATOM	453	OG	SER	1058	51.420	66.083	-8.668	1.00	19.19	heav	0
ATOM	454	C	SER	1058	51.269	62.503	-7.783	1.00	2.00	heav	0
ATOM	455	O	SER	1058	50.200	62.312	-7.194	1.00	19.19	heav	0
ATOM	456	N	ILE	1059	52.322	61.703	-7.658	1.00	2.00	heav	0
ATOM	457	CA	ILE	1059	52.360	60.456	-6.900	1.00	2.00	heav	0
ATOM	458	CB	ILE	1059	52.894	59.356	-7.832	1.00	15.91	heav	0
ATOM	459	CG2	ILE	1059	53.242	58.122	-7.033	1.00	15.91	heav	0
ATOM	460	CG1	ILE	1059	51.876	59.145	-8.972	1.00	15.91	heav	0
ATOM	461	CD1	ILE	1059	52.159	58.150	-10.129	1.00	15.91	heav	0
ATOM	462	C	ILE	1059	53.287	60.678	-5.745	1.00	2.00	heav	0
ATOM	463	O	ILE	1059	54.234	61.467	-5.856	1.00	15.91	heav	0
ATOM	464	N	TYR	1060	53.071	60.006	-4.643	1.00	20.58	heav	0
ATOM	465	CA	TYR	1060	54.050	60.095	-3.604	1.00	20.58	heav	0
ATOM	466	CB	TYR	1060	53.779	61.224	-2.673	1.00	36.93	heav	0
ATOM	467	CG	TYR	1060	54.972	61.301	-1.750	1.00	36.93	heav	0
ATOM	468	CD1	TYR	1060	54.780	61.627	-0.456	1.00	36.93	heav	0
ATOM	469	CE1	TYR	1060	55.835	61.692	0.421	1.00	36.93	heav	0
ATOM	470	CD2	TYR	1060	56.251	61.036	-2.170	1.00	36.93	heav	0
ATOM	471	CE2	TYR	1060	57.310	61.094	-1.296	1.00	36.93	heav	0
ATOM	472	CZ	TYR	1060	57.100	61.434	0.008	1.00	36.93	heav	0
ATOM	473	OH	TYR	1060	58.168	61.548	0.876	1.00	36.93	heav	0
ATOM	474	C	TYR	1060	54.002	58.824	-2.834	1.00	20.58	heav	0
ATOM	475	O	TYR	1060	52.870	58.442	-2.507	1.00	36.93	heav	0
ATOM	476	N	TYR	1061	55.210	58.254	-2.550	1.00	2.00	heav	0
ATOM	477	CA	TYR	1061	55.298	56.954	-1.876	1.00	2.00	heav	0
ATOM	478	CB	TYR	1061	56.119	55.945	-2.637	1.00	2.00	heav	0
ATOM	479	CG	TYR	1061	55.759	55.598	-4.088	1.00	2.00	heav	0
ATOM	480	CD1	TYR	1061	55.194	54.388	-4.374	1.00	2.00	heav	0

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ATOM	481	CE1	TYR	1061	54.996	54.023	-5.684	1.00	2.00	heav	0
ATOM	482	CD2	TYR	1061	56.105	56.446	-5.130	1.00	2.00	heav	0
ATOM	483	CE2	TYR	1061	55.910	56.093	-6.444	1.00	2.00	heav	0
ATOM	484	CZ	TYR	1061	55.343	54.865	-6.723	1.00	2.00	heav	0
ATOM	485	OH	TYR	1061	55.078	54.474	-8.043	1.00	2.00	heav	0
ATOM	486	C	TYR	1061	55.963	56.994	-0.520	1.00	2.00	heav	0
ATOM	487	O	TYR	1061	56.936	57.737	-0.386	1.00	2.00	heav	0
ATOM	488	N	SER	1062	55.527	56.193	0.456	1.00	2.00	heav	0
ATOM	489	CA	SER	1062	56.278	56.009	1.705	1.00	2.00	heav	0
ATOM	490	CB	SER	1062	55.713	54.944	2.612	1.00	37.95	heav	0
ATOM	491	OG	SER	1062	54.306	55.159	2.579	1.00	37.95	heav	0
ATOM	492	C	SER	1062	57.603	55.497	1.292	1.00	2.00	heav	0
ATOM	493	O	SER	1062	57.659	54.575	0.467	1.00	37.95	heav	0
ATOM	494	N	PRO	1063	58.712	56.025	1.787	1.00	9.61	heav	0
ATOM	495	CD	PRO	1063	58.787	57.314	2.427	1.00	2.00	heav	0
ATOM	496	CA	PRO	1063	59.993	55.303	1.776	1.00	9.61	heav	0
ATOM	497	CB	PRO	1063	60.860	56.186	2.557	1.00	2.00	heav	0
ATOM	498	CG	PRO	1063	59.893	57.014	3.367	1.00	2.00	heav	0
ATOM	499	C	PRO	1063	59.661	53.973	2.424	1.00	9.61	heav	0
ATOM	500	O	PRO	1063	58.828	53.994	3.326	1.00	2.00	heav	0
ATOM	501	N	SER	1064	60.132	52.834	1.945	1.00	2.00	heav	0
ATOM	502	CA	SER	1064	59.889	51.449	2.399	1.00	2.00	heav	0
ATOM	503	CB	SER	1064	59.089	51.249	3.707	1.00	36.62	heav	0
ATOM	504	OG	SER	1064	57.739	51.650	3.671	1.00	36.62	heav	0
ATOM	505	C	SER	1064	59.079	50.874	1.266	1.00	2.00	heav	0
ATOM	506	O	SER	1064	59.482	49.870	0.675	1.00	36.62	heav	0
ATOM	507	N	ILE	1065	58.014	51.522	0.812	1.00	2.00	heav	0
ATOM	508	CA	ILE	1065	57.386	51.003	-0.364	1.00	2.00	heav	0
ATOM	509	CB	ILE	1065	55.909	51.344	-0.234	1.00	2.00	heav	0
ATOM	510	CG2	ILE	1065	55.187	52.175	-1.264	1.00	2.00	heav	0
ATOM	511	CG1	ILE	1065	55.411	49.943	-0.258	1.00	2.00	heav	0
ATOM	512	CD1	ILE	1065	55.928	49.072	0.926	1.00	2.00	heav	0
ATOM	513	C	ILE	1065	58.086	51.540	-1.589	1.00	2.00	heav	0
ATOM	514	O	ILE	1065	58.182	50.769	-2.540	1.00	2.00	heav	0
ATOM	515	N	LYS	1066	58.763	52.703	-1.529	1.00	2.00	heav	0
ATOM	516	CA	LYS	1066	59.229	53.375	-2.728	1.00	2.00	heav	0
ATOM	517	CB	LYS	1066	60.132	54.500	-2.318	1.00	58.55	heav	0
ATOM	518	CG	LYS	1066	60.403	55.432	-3.483	1.00	58.55	heav	0
ATOM	519	CD	LYS	1066	60.498	56.869	-2.988	1.00	58.55	heav	0
ATOM	520	CE	LYS	1066	61.612	57.679	-3.676	1.00	58.55	heav	0
ATOM	521	NZ	LYS	1066	62.847	57.724	-2.877	1.00	58.55	heav	0
ATOM	522	C	LYS	1066	59.912	52.543	-3.815	1.00	2.00	heav	0
ATOM	523	O	LYS	1066	59.572	52.618	-5.000	1.00	58.55	heav	0
ATOM	524	N	SER	1067	60.786	51.635	-3.434	1.00	2.00	heav	0
ATOM	525	CA	SER	1067	61.517	50.880	-4.432	1.00	2.00	heav	0
ATOM	526	CB	SER	1067	62.943	50.789	-3.973	1.00	23.56	heav	0
ATOM	527	OG	SER	1067	62.975	50.372	-2.612	1.00	23.56	heav	0
ATOM	528	C	SER	1067	60.949	49.518	-4.688	1.00	2.00	heav	0
ATOM	529	O	SER	1067	61.647	48.627	-5.140	1.00	23.56	heav	0
ATOM	530	N	ARG	1068	59.688	49.328	-4.362	1.00	2.00	heav	0
ATOM	531	CA	ARG	1068	59.017	48.091	-4.665	1.00	2.00	heav	0
ATOM	532	CB	ARG	1068	59.221	47.057	-3.577	1.00	23.36	heav	0
ATOM	533	CG	ARG	1068	58.869	47.294	-2.156	1.00	23.36	heav	0
ATOM	534	CD	ARG	1068	58.678	45.858	-1.663	1.00	23.36	heav	0
ATOM	535	NE	ARG	1068	58.033	45.820	-0.361	1.00	23.36	heav	0
ATOM	536	CZ	ARG	1068	57.118	44.902	-0.014	1.00	23.36	heav	0
ATOM	537	NH1	ARG	1068	56.690	43.922	-0.816	1.00	23.36	heav	0
ATOM	538	NH2	ARG	1068	56.631	44.964	1.222	1.00	23.36	heav	0
ATOM	539	C	ARG	1068	57.553	48.382	-4.825	1.00	2.00	heav	0
ATOM	540	O	ARG	1068	56.683	47.566	-4.547	1.00	23.36	heav	0
ATOM	541	N	SER	1069	57.287	49.511	-5.456	1.00	2.00	heav	0
ATOM	542	CA	SER	1069	55.951	49.999	-5.546	1.00	2.00	heav	0
ATOM	543	CB	SER	1069	55.780	50.888	-4.420	1.00	2.00	heav	0
ATOM	544	OG	SER	1069	54.414	50.908	-4.119	1.00	2.00	heav	0
ATOM	545	C	SER	1069	55.714	50.741	-6.817	1.00	2.00	heav	0
ATOM	546	O	SER	1069	56.599	51.370	-7.378	1.00	2.00	heav	0
ATOM	547	N	THR	1070	54.471	50.744	-7.209	1.00	2.00	heav	0

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ATOM	548	CA	THR	1070	54.091	51.523	-8.348	1.00	2.00	heav	0
ATOM	549	CB	THR	1070	54.369	50.803	-9.628	1.00	19.94	heav	0
ATOM	550	OG1	THR	1070	55.744	50.994	-9.877	1.00	19.94	heav	0
ATOM	551	CG2	THR	1070	53.666	51.367	-10.801	1.00	19.94	heav	0
ATOM	552	C	THR	1070	52.630	51.765	-8.207	1.00	2.00	heav	0
ATOM	553	O	THR	1070	51.763	50.872	-8.029	1.00	19.94	heav	0
ATOM	554	N	ILE	1071	52.448	53.071	-8.108	1.00	2.00	heav	0
ATOM	555	CA	ILE	1071	51.086	53.543	-8.005	1.00	2.00	heav	0
ATOM	556	CB	ILE	1071	51.173	54.591	-6.892	1.00	36.83	heav	0
ATOM	557	CG2	ILE	1071	49.954	55.465	-6.917	1.00	36.83	heav	0
ATOM	558	CG1	ILE	1071	51.279	53.897	-5.540	1.00	36.83	heav	0
ATOM	559	CD1	ILE	1071	51.683	54.841	-4.391	1.00	36.83	heav	0
ATOM	560	C	ILE	1071	50.609	54.040	-9.380	1.00	2.00	heav	0
ATOM	561	O	ILE	1071	51.224	54.968	-9.886	1.00	36.83	heav	0
ATOM	562	N	SER	1072	49.638	53.532	-10.117	1.00	2.00	heav	0
ATOM	563	CA	SER	1072	49.283	54.137	-11.385	1.00	2.00	heav	0
ATOM	564	CB	SER	1072	49.716	53.234	-12.512	1.00	31.22	heav	0
ATOM	565	OG	SER	1072	49.312	51.883	-12.321	1.00	31.22	heav	0
ATOM	566	C	SER	1072	47.782	54.279	-11.347	1.00	2.00	heav	0
ATOM	567	O	SER	1072	47.131	53.625	-10.511	1.00	31.22	heav	0
ATOM	568	N	ARG	1073	47.182	55.116	-12.198	1.00	2.00	heav	0
ATOM	569	CA	ARG	1073	45.722	55.255	-12.221	1.00	2.00	heav	0
ATOM	570	CB	ARG	1073	45.322	56.675	-11.900	1.00	41.67	heav	0
ATOM	571	CG	ARG	1073	45.927	57.710	-12.815	1.00	41.67	heav	0
ATOM	572	CD	ARG	1073	45.219	59.028	-12.625	1.00	41.67	heav	0
ATOM	573	NE	ARG	1073	45.854	60.010	-13.474	1.00	41.67	heav	0
ATOM	574	CZ	ARG	1073	45.781	61.319	-13.233	1.00	41.67	heav	0
ATOM	575	NH1	ARG	1073	45.114	61.833	-12.211	1.00	41.67	heav	0
ATOM	576	NH2	ARG	1073	46.480	62.143	-13.998	1.00	41.67	heav	0
ATOM	577	C	ARG	1073	45.160	54.896	-13.582	1.00	2.00	heav	0
ATOM	578	O	ARG	1073	45.928	54.524	-14.473	1.00	41.67	heav	0
ATOM	579	N	ASP	1074	43.843	54.999	-13.756	1.00	26.18	heav	0
ATOM	580	CA	ASP	1074	43.190	54.834	-15.056	1.00	26.18	heav	0
ATOM	581	CB	ASP	1074	42.756	53.399	-15.281	1.00	58.13	heav	0
ATOM	582	CG	ASP	1074	42.482	53.175	-16.762	1.00	58.13	heav	0
ATOM	583	OD1	ASP	1074	41.350	53.423	-17.192	1.00	58.13	heav	0
ATOM	584	OD2	ASP	1074	43.407	52.762	-17.478	1.00	58.13	heav	0
ATOM	585	C	ASP	1074	41.948	55.751	-15.091	1.00	26.18	heav	0
ATOM	586	O	ASP	1074	40.783	55.453	-14.762	1.00	58.13	heav	0
ATOM	587	N	THR	1075	42.295	56.925	-15.605	1.00	26.29	heav	0
ATOM	588	CA	THR	1075	41.459	58.110	-15.651	1.00	26.29	heav	0
ATOM	589	CB	THR	1075	42.226	59.192	-16.406	1.00	66.80	heav	0
ATOM	590	OG1	THR	1075	43.613	58.821	-16.539	1.00	66.80	heav	0
ATOM	591	CG2	THR	1075	42.093	60.482	-15.646	1.00	66.80	heav	0
ATOM	592	C	THR	1075	40.127	57.839	-16.287	1.00	26.29	heav	0
ATOM	593	O	THR	1075	39.115	58.288	-15.780	1.00	66.80	heav	0
ATOM	594	N	SER	1076	40.105	56.999	-17.323	1.00	46.28	heav	0
ATOM	595	CA	SER	1076	38.862	56.683	-18.000	1.00	46.28	heav	0
ATOM	596	CB	SER	1076	39.137	56.048	-19.340	1.00	35.32	heav	0
ATOM	597	OG	SER	1076	39.768	54.780	-19.227	1.00	35.32	heav	0
ATOM	598	C	SER	1076	37.968	55.753	-17.219	1.00	46.28	heav	0
ATOM	599	O	SER	1076	36.768	55.807	-17.375	1.00	35.32	heav	0
ATOM	600	N	LEU	1077	38.504	54.873	-16.393	1.00	19.57	heav	0
ATOM	601	CA	LEU	1077	37.670	53.930	-15.627	1.00	19.57	heav	0
ATOM	602	CB	LEU	1077	38.388	52.594	-15.449	1.00	56.89	heav	0
ATOM	603	CG	LEU	1077	38.616	51.688	-16.648	1.00	56.89	heav	0
ATOM	604	CD1	LEU	1077	39.204	50.336	-16.221	1.00	56.89	heav	0
ATOM	605	CD2	LEU	1077	37.272	51.457	-17.328	1.00	56.89	heav	0
ATOM	606	C	LEU	1077	37.248	54.385	-14.244	1.00	19.57	heav	0
ATOM	607	O	LEU	1077	36.342	53.878	-13.583	1.00	56.89	heav	0
ATOM	608	N	ASN	1078	38.071	55.329	-13.833	1.00	24.97	heav	0
ATOM	609	CA	ASN	1078	37.917	55.978	-12.573	1.00	24.97	heav	0
ATOM	610	CB	ASN	1078	36.505	56.944	-12.416	1.00	43.84	heav	0
ATOM	611	CG	ASN	1078	36.479	57.719	-11.459	1.00	43.84	heav	0
ATOM	612	OD1	ASN	1078	37.001	58.813	-11.729	1.00	43.84	heav	0
ATOM	613	ND2	ASN	1078	35.864	57.519	-10.300	1.00	43.84	heav	0
ATOM	614	C	ASN	1078	38.208	54.975	-11.489	1.00	24.97	heav	0

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ATOM	615	O	ASN	1078	37.382	54.691	-10.611	1.00	43.84	heav	0
ATOM	616	N	LYS	1079	39.465	54.476	-11.600	1.00	2.00	heav	0
ATOM	617	CA	LYS	1079	40.088	53.607	-10.574	1.00	2.00	heav	0
ATOM	618	CB	LYS	1079	39.775	52.120	-10.851	1.00	25.31	heav	0
ATOM	619	CG	LYS	1079	40.168	51.875	-12.243	1.00	25.31	heav	0
ATOM	620	CD	LYS	1079	40.100	50.453	-12.576	1.00	25.31	heav	0
ATOM	621	CE	LYS	1079	38.646	49.983	-12.618	1.00	25.31	heav	0
ATOM	622	NZ	LYS	1079	38.631	48.625	-13.184	1.00	25.31	heav	0
ATOM	623	C	LYS	1079	41.603	53.808	-10.491	1.00	2.00	heav	0
ATOM	624	O	LYS	1079	42.222	54.272	-11.455	1.00	25.31	heav	0
ATOM	625	N	PHE	1080	42.219	53.574	-9.343	1.00	19.73	heav	0
ATOM	626	CA	PHE	1080	43.667	53.620	-9.214	1.00	19.73	heav	0
ATOM	627	CB	PHE	1080	44.126	54.743	-8.325	1.00	2.00	heav	0
ATOM	628	CG	PHE	1080	43.448	54.924	-7.008	1.00	2.00	heav	0
ATOM	629	CD1	PHE	1080	44.200	54.882	-5.873	1.00	2.00	heav	0
ATOM	630	CD2	PHE	1080	42.103	55.175	-6.938	1.00	2.00	heav	0
ATOM	631	CE1	PHE	1080	43.595	55.101	-4.660	1.00	2.00	heav	0
ATOM	632	CE2	PHE	1080	41.501	55.391	-5.724	1.00	2.00	heav	0
ATOM	633	CZ	PHE	1080	42.247	55.353	-4.584	1.00	2.00	heav	0
ATOM	634	C	PHE	1080	44.204	52.318	-8.644	1.00	19.73	heav	0
ATOM	635	O	PHE	1080	43.388	51.513	-8.113	1.00	2.00	heav	0
ATOM	636	N	PHE	1081	45.541	52.083	-8.776	1.00	2.00	heav	0
ATOM	637	CA	PHE	1081	46.085	50.796	-8.340	1.00	2.00	heav	0
ATOM	638	CB	PHE	1081	46.488	49.902	-9.506	1.00	25.42	heav	0
ATOM	639	CG	PHE	1081	45.628	50.090	-10.725	1.00	25.42	heav	0
ATOM	640	CD1	PHE	1081	45.933	51.089	-11.622	1.00	25.42	heav	0
ATOM	641	CD2	PHE	1081	44.514	49.311	-10.918	1.00	25.42	heav	0
ATOM	642	CE1	PHE	1081	45.102	51.300	-12.694	1.00	25.42	heav	0
ATOM	643	CE2	PHE	1081	43.690	49.535	-12.007	1.00	25.42	heav	0
ATOM	644	CZ	PHE	1081	43.980	50.530	-12.892	1.00	25.42	heav	0
ATOM	645	C	PHE	1081	47.327	50.932	-7.491	1.00	2.00	heav	0
ATOM	646	O	PHE	1081	47.893	52.009	-7.297	1.00	25.42	heav	0
ATOM	647	N	ILE	1082	47.778	49.800	-7.011	1.00	2.00	heav	0
ATOM	648	CA	ILE	1082	49.088	49.764	-6.448	1.00	2.00	heav	0
ATOM	649	CB	ILE	1082	49.039	50.125	-4.976	1.00	8.94	heav	0
ATOM	650	CG2	ILE	1082	48.051	49.235	-4.252	1.00	8.94	heav	0
ATOM	651	CG1	ILE	1082	50.450	50.076	-4.439	1.00	8.94	heav	0
ATOM	652	CD1	ILE	1082	50.530	50.788	-3.106	1.00	8.94	heav	0
ATOM	653	C	ILE	1082	49.613	48.361	-6.652	1.00	2.00	heav	0
ATOM	654	O	ILE	1082	48.873	47.366	-6.613	1.00	8.94	heav	0
ATOM	655	N	GLN	1083	50.893	48.345	-6.975	1.00	2.00	heav	0
ATOM	656	CA	GLN	1083	51.638	47.126	-7.082	1.00	2.00	heav	0
ATOM	657	CB	GLN	1083	52.270	47.010	-8.451	1.00	24.06	heav	0
ATOM	658	CG	GLN	1083	53.269	45.847	-8.520	1.00	24.06	heav	0
ATOM	659	CD	GLN	1083	53.956	45.598	-9.843	1.00	24.06	heav	0
ATOM	660	OE1	GLN	1083	54.968	46.189	-10.173	1.00	24.06	heav	0
ATOM	661	NE2	GLN	1083	53.485	44.670	-10.659	1.00	24.06	heav	0
ATOM	662	C	GLN	1083	52.747	47.138	-6.031	1.00	2.00	heav	0
ATOM	663	O	GLN	1083	53.550	48.089	-5.918	1.00	24.06	heav	0
ATOM	664	N	LEU	1084	52.748	46.009	-5.338	1.00	2.00	heav	0
ATOM	665	CA	LEU	1084	53.705	45.671	-4.330	1.00	2.00	heav	0
ATOM	666	CB	LEU	1084	52.904	45.406	-3.094	1.00	2.00	heav	0
ATOM	667	CG	LEU	1084	53.025	46.366	-1.972	1.00	2.00	heav	0
ATOM	668	CD1	LEU	1084	54.272	46.100	-1.196	1.00	2.00	heav	0
ATOM	669	CD2	LEU	1084	53.138	47.743	-2.507	1.00	2.00	heav	0
ATOM	670	C	LEU	1084	54.430	44.443	-4.878	1.00	2.00	heav	0
ATOM	671	O	LEU	1084	53.845	43.381	-5.095	1.00	2.00	heav	0
ATOM	672	N	ILE	1085	55.689	44.626	-5.223	1.00	2.00	heav	0
ATOM	673	CA	ILE	1085	56.559	43.608	-5.770	1.00	2.00	heav	0
ATOM	674	CB	ILE	1085	57.609	44.418	-6.623	1.00	21.54	heav	0
ATOM	675	CG2	ILE	1085	59.046	44.007	-6.611	1.00	21.54	heav	0
ATOM	676	CG1	ILE	1085	57.091	44.275	-8.006	1.00	21.54	heav	0
ATOM	677	CD1	ILE	1085	56.936	42.829	-8.521	1.00	21.54	heav	0
ATOM	678	C	ILE	1085	57.090	42.830	-4.580	1.00	2.00	heav	0
ATOM	679	O	ILE	1085	57.128	43.328	-3.450	1.00	21.54	heav	0
ATOM	680	N	SER	1086	57.417	41.568	-4.866	1.00	25.74	heav	0
ATOM	681	CA	SER	1086	57.990	40.594	-3.925	1.00	25.74	heav	0

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ATOM	682	CB	SER	1086	59.486	40.686	-4.000	1.00	39.54	heav	0
ATOM	683	OG	SER	1086	59.892	41.992	-3.617	1.00	39.54	heav	0
ATOM	684	C	SER	1086	57.549	40.713	-2.485	1.00	25.74	heav	0
ATOM	685	O	SER	1086	58.257	41.177	-1.586	1.00	39.54	heav	0
ATOM	686	N	VAL	1087	56.276	40.340	-2.404	1.00	2.00	heav	0
ATOM	687	CA	VAL	1087	55.550	40.380	-1.158	1.00	2.00	heav	0
ATOM	688	CB	VAL	1087	54.107	40.058	-1.440	1.00	13.89	heav	0
ATOM	689	CG1	VAL	1087	53.533	41.051	-2.416	1.00	13.89	heav	0
ATOM	690	CG2	VAL	1087	53.997	38.731	-2.117	1.00	13.89	heav	0
ATOM	691	C	VAL	1087	56.142	39.380	-0.176	1.00	2.00	heav	0
ATOM	692	O	VAL	1087	56.799	38.415	-0.566	1.00	13.89	heav	0
ATOM	693	N	THR	1088	55.994	39.581	1.118	1.00	31.45	heav	0
ATOM	694	CA	THR	1088	56.426	38.621	2.107	1.00	31.45	heav	0
ATOM	695	CB	THR	1088	57.734	39.115	2.752	1.00	23.45	heav	0
ATOM	696	OG1	THR	1088	57.372	40.196	3.584	1.00	23.45	heav	0
ATOM	697	CG2	THR	1088	58.763	39.650	1.790	1.00	23.45	heav	0
ATOM	698	C	THR	1088	55.277	38.545	3.131	1.00	31.45	heav	0
ATOM	699	O	THR	1088	54.197	39.111	2.953	1.00	23.45	heav	0
ATOM	700	N	ASN	1089	55.466	37.981	4.317	1.00	31.45	heav	0
ATOM	701	CA	ASN	1089	54.380	37.893	5.277	1.00	31.45	heav	0
ATOM	702	CB	ASN	1089	54.717	37.031	6.483	1.00	77.42	heav	0
ATOM	703	CG	ASN	1089	54.985	35.603	6.071	1.00	77.42	heav	0
ATOM	704	OD1	ASN	1089	56.157	35.254	5.962	1.00	77.42	heav	0
ATOM	705	ND2	ASN	1089	54.012	34.753	5.757	1.00	77.42	heav	0
ATOM	706	C	ASN	1089	54.053	39.269	5.785	1.00	31.45	heav	0
ATOM	707	O	ASN	1089	52.901	39.530	6.110	1.00	77.42	heav	0
ATOM	708	N	GLU	1090	54.970	40.233	5.754	1.00	15.93	heav	0
ATOM	709	CA	GLU	1090	54.632	41.559	6.249	1.00	15.93	heav	0
ATOM	710	CB	GLU	1090	55.926	42.291	6.495	1.00	128.40	heav	0
ATOM	711	CG	GLU	1090	56.530	41.569	7.705	1.00	128.40	heav	0
ATOM	712	CD	GLU	1090	57.792	42.131	8.353	1.00	128.40	heav	0
ATOM	713	OE1	GLU	1090	58.307	43.189	7.917	1.00	128.40	heav	0
ATOM	714	OE2	GLU	1090	58.248	41.511	9.321	1.00	128.40	heav	0
ATOM	715	C	GLU	1090	53.713	42.324	5.316	1.00	15.93	heav	0
ATOM	716	O	GLU	1090	53.345	43.455	5.576	1.00	128.40	heav	0
ATOM	717	N	ASP	1091	53.352	41.722	4.186	1.00	2.00	heav	0
ATOM	718	CA	ASP	1091	52.447	42.338	3.274	1.00	2.00	heav	0
ATOM	719	CB	ASP	1091	52.965	41.982	1.925	1.00	15.58	heav	0
ATOM	720	CG	ASP	1091	54.180	42.847	1.700	1.00	15.58	heav	0
ATOM	721	OD1	ASP	1091	54.034	44.055	1.843	1.00	15.58	heav	0
ATOM	722	OD2	ASP	1091	55.260	42.351	1.423	1.00	15.58	heav	0
ATOM	723	C	ASP	1091	51.044	41.909	3.550	1.00	2.00	heav	0
ATOM	724	O	ASP	1091	50.089	42.413	2.977	1.00	15.58	heav	0
ATOM	725	N	THR	1092	50.913	40.994	4.509	1.00	2.00	heav	0
ATOM	726	CA	THR	1092	49.619	40.427	4.829	1.00	2.00	heav	0
ATOM	727	CB	THR	1092	49.825	39.100	5.552	1.00	33.62	heav	0
ATOM	728	OG1	THR	1092	50.398	38.169	4.644	1.00	33.62	heav	0
ATOM	729	CG2	THR	1092	48.530	38.492	5.971	1.00	33.62	heav	0
ATOM	730	C	THR	1092	48.950	41.468	5.692	1.00	2.00	heav	0
ATOM	731	O	THR	1092	49.426	41.782	6.789	1.00	33.62	heav	0
ATOM	732	N	ALA	1093	47.875	42.022	5.145	1.00	2.00	heav	0
ATOM	733	CA	ALA	1093	47.241	43.100	5.807	1.00	2.00	heav	0
ATOM	734	CB	ALA	1093	48.115	44.282	5.686	1.00	14.51	heav	0
ATOM	735	C	ALA	1093	45.890	43.434	5.228	1.00	2.00	heav	0
ATOM	736	O	ALA	1093	45.396	42.762	4.312	1.00	14.51	heav	0
ATOM	737	N	MET	1094	45.241	44.443	5.827	1.00	2.00	heav	0
ATOM	738	CA	MET	1094	44.059	44.980	5.250	1.00	2.00	heav	0
ATOM	739	CB	MET	1094	43.086	45.113	6.344	1.00	33.63	heav	0
ATOM	740	CG	MET	1094	41.805	45.638	5.706	1.00	33.63	heav	0
ATOM	741	SD	MET	1094	40.416	44.505	5.906	1.00	33.63	heav	0
ATOM	742	CE	MET	1094	40.149	45.062	7.579	1.00	33.63	heav	0
ATOM	743	C	MET	1094	44.454	46.320	4.590	1.00	2.00	heav	0
ATOM	744	O	MET	1094	45.233	47.155	5.053	1.00	33.63	heav	0
ATOM	745	N	TYR	1095	43.973	46.415	3.378	1.00	17.16	heav	0
ATOM	746	CA	TYR	1095	44.366	47.459	2.492	1.00	17.16	heav	0
ATOM	747	CB	TYR	1095	44.958	46.805	1.208	1.00	2.00	heav	0
ATOM	748	CG	TYR	1095	46.364	46.184	1.314	1.00	2.00	heav	0

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ATOM	749	CD1	TYR	1095	46.533	44.945	1.901	1.00	2.00	heav	0
ATOM	750	CE1	TYR	1095	47.773	44.410	2.090	1.00	2.00	heav	0
ATOM	751	CD2	TYR	1095	47.437	46.916	0.878	1.00	2.00	heav	0
ATOM	752	CE2	TYR	1095	48.682	46.395	1.060	1.00	2.00	heav	0
ATOM	753	CZ	TYR	1095	48.843	45.152	1.665	1.00	2.00	heav	0
ATOM	754	OH	TYR	1095	50.119	44.671	1.906	1.00	2.00	heav	0
ATOM	755	C	TYR	1095	43.082	48.191	2.240	1.00	17.16	heav	0
ATOM	756	O	TYR	1095	42.046	47.586	1.936	1.00	2.00	heav	0
ATOM	757	N	TYR	1096	43.242	49.487	2.366	1.00	2.00	heav	0
ATOM	758	CA	TYR	1096	42.187	50.458	2.275	1.00	2.00	heav	0
ATOM	759	CB	TYR	1096	42.008	51.276	3.489	1.00	2.00	heav	0
ATOM	760	CG	TYR	1096	41.576	50.553	4.703	1.00	2.00	heav	0
ATOM	761	CD1	TYR	1096	40.302	50.038	4.747	1.00	2.00	heav	0
ATOM	762	CE1	TYR	1096	39.869	49.326	5.860	1.00	2.00	heav	0
ATOM	763	CD2	TYR	1096	42.442	50.387	5.755	1.00	2.00	heav	0
ATOM	764	CE2	TYR	1096	42.042	49.674	6.876	1.00	2.00	heav	0
ATOM	765	CZ	TYR	1096	40.767	49.157	6.894	1.00	2.00	heav	0
ATOM	766	OH	TYR	1096	40.388	48.371	7.935	1.00	2.00	heav	0
ATOM	767	C	TYR	1096	42.534	51.518	1.254	1.00	2.00	heav	0
ATOM	768	O	TYR	1096	43.749	51.811	1.186	1.00	2.00	heav	0
ATOM	769	N	CYS	1097	41.602	52.181	0.514	1.00	2.00	heav	0
ATOM	770	CA	CYS	1097	41.939	53.378	-0.247	1.00	2.00	heav	0
ATOM	771	C	CYS	1097	41.048	54.452	0.344	1.00	2.00	heav	0
ATOM	772	O	CYS	1097	39.942	54.146	0.840	1.00	12.29	heav	0
ATOM	773	CB	CYS	1097	41.637	53.211	-1.713	1.00	12.29	heav	0
ATOM	774	SG	CYS	1097	40.078	52.422	-2.252	1.00	12.29	heav	0
ATOM	775	N	SER	1098	41.506	55.685	0.433	1.00	2.00	heav	0
ATOM	776	CA	SER	1098	40.617	56.707	0.907	1.00	2.00	heav	0
ATOM	777	CB	SER	1098	40.850	56.868	2.399	1.00	23.32	heav	0
ATOM	778	OG	SER	1098	42.087	57.473	2.670	1.00	23.32	heav	0
ATOM	779	C	SER	1098	40.827	58.010	0.130	1.00	2.00	heav	0
ATOM	780	O	SER	1098	41.692	58.099	-0.760	1.00	23.32	heav	0
ATOM	781	N	ARG	1099	40.120	59.084	0.513	1.00	2.00	heav	0
ATOM	782	CA	ARG	1099	40.111	60.350	-0.227	1.00	2.00	heav	0
ATOM	783	CB	ARG	1099	38.710	60.502	-0.717	1.00	23.20	heav	0
ATOM	784	CG	ARG	1099	38.480	61.473	-1.815	1.00	23.20	heav	0
ATOM	785	CD	ARG	1099	37.483	62.357	-1.210	1.00	23.20	heav	0
ATOM	786	NE	ARG	1099	36.327	62.553	-2.053	1.00	23.20	heav	0
ATOM	787	CZ	ARG	1099	35.240	63.034	-1.457	1.00	23.20	heav	0
ATOM	788	NH1	ARG	1099	35.239	63.349	-0.154	1.00	23.20	heav	0
ATOM	789	NH2	ARG	1099	34.083	63.080	-2.106	1.00	23.20	heav	0
ATOM	790	C	ARG	1099	40.536	61.536	0.617	1.00	2.00	heav	0
ATOM	791	O	ARG	1099	40.180	61.572	1.801	1.00	23.20	heav	0
ATOM	792	N	GLU	1100	41.220	62.510	0.083	1.00	2.00	heav	0
ATOM	793	CA	GLU	1100	41.697	63.593	0.900	1.00	2.00	heav	0
ATOM	794	CB	GLU	1100	43.194	63.436	1.084	1.00	2.00	heav	0
ATOM	795	CG	GLU	1100	43.772	64.541	1.922	1.00	2.00	heav	0
ATOM	796	CD	GLU	1100	45.267	64.813	1.789	1.00	2.00	heav	0
ATOM	797	OE1	GLU	1100	45.947	64.197	0.993	1.00	2.00	heav	0
ATOM	798	OE2	GLU	1100	45.782	65.683	2.480	1.00	2.00	heav	0
ATOM	799	C	GLU	1100	41.387	64.907	0.191	1.00	2.00	heav	0
ATOM	800	O	GLU	1100	41.537	64.998	-1.037	1.00	2.00	heav	0
ATOM	801	N	ASN	1101	40.974	65.977	0.866	1.00	2.00	heav	0
ATOM	802	CA	ASN	1101	40.837	67.234	0.162	1.00	2.00	heav	0
ATOM	803	CB	ASN	1101	39.762	68.066	0.723	1.00	54.32	heav	0
ATOM	804	CG	ASN	1101	39.466	69.220	-0.191	1.00	54.32	heav	0
ATOM	805	OD1	ASN	1101	38.339	69.365	-0.652	1.00	54.32	heav	0
ATOM	806	ND2	ASN	1101	40.430	70.055	-0.563	1.00	54.32	heav	0
ATOM	807	C	ASN	1101	42.141	67.835	0.547	1.00	2.00	heav	0
ATOM	808	O	ASN	1101	42.356	68.183	1.717	1.00	54.32	heav	0
ATOM	809	N	HIS	1102	42.989	68.070	-0.408	1.00	18.25	heav	0
ATOM	810	CA	HIS	1102	44.332	68.409	-0.024	1.00	18.25	heav	0
ATOM	811	CB	HIS	1102	45.196	67.714	-1.004	1.00	12.16	heav	0
ATOM	812	CG	HIS	1102	46.629	67.682	-0.584	1.00	12.16	heav	0
ATOM	813	CD2	HIS	1102	47.675	67.983	-1.424	1.00	12.16	heav	0
ATOM	814	ND1	HIS	1102	47.087	67.450	0.634	1.00	12.16	heav	0
ATOM	815	CE1	HIS	1102	48.381	67.609	0.589	1.00	12.16	heav	0

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ATOM	816	NE2	HIS	1102	48.714	67.930	-0.654	1.00	12.16	heav	0
ATOM	817	C	HIS	1102	44.641	69.879	0.067	1.00	18.25	heav	0
ATOM	818	O	HIS	1102	45.723	70.297	0.479	1.00	12.16	heav	0
ATOM	819	N	MET	1103	43.674	70.616	-0.459	1.00	36.42	heav	0
ATOM	820	CA	MET	1103	43.725	72.050	-0.507	1.00	36.42	heav	0
ATOM	821	CB	MET	1103	43.096	72.406	-1.861	1.00	49.03	heav	0
ATOM	822	CG	MET	1103	43.360	73.705	-2.625	1.00	49.03	heav	0
ATOM	823	SD	MET	1103	44.998	73.950	-3.349	1.00	49.03	heav	0
ATOM	824	CE	MET	1103	45.683	74.787	-1.934	1.00	49.03	heav	0
ATOM	825	C	MET	1103	42.963	72.542	0.722	1.00	36.42	heav	0
ATOM	826	O	MET	1103	43.520	73.240	1.574	1.00	49.03	heav	0
ATOM	827	N	TYR	1104	41.707	72.189	0.944	1.00	49.38	heav	0
ATOM	828	CA	TYR	1104	41.075	72.822	2.093	1.00	49.38	heav	0
ATOM	829	CB	TYR	1104	39.666	73.254	1.692	1.00	114.86	heav	0
ATOM	830	CG	TYR	1104	39.508	73.947	0.341	1.00	114.86	heav	0
ATOM	831	CD1	TYR	1104	40.053	75.198	0.166	1.00	114.86	heav	0
ATOM	832	CE1	TYR	1104	39.896	75.840	-1.039	1.00	114.86	heav	0
ATOM	833	CD2	TYR	1104	38.780	73.348	-0.694	1.00	114.86	heav	0
ATOM	834	CE2	TYR	1104	38.616	74.001	-1.914	1.00	114.86	heav	0
ATOM	835	CZ	TYR	1104	39.167	75.267	-2.063	1.00	114.86	heav	0
ATOM	836	OH	TYR	1104	39.038	75.989	-3.246	1.00	114.86	heav	0
ATOM	837	C	TYR	1104	40.975	72.021	3.386	1.00	49.38	heav	0
ATOM	838	O	TYR	1104	40.299	72.486	4.300	1.00	114.86	heav	0
ATOM	839	N	GLU	1105	41.482	70.801	3.555	1.00	33.39	heav	0
ATOM	840	CA	GLU	1105	41.066	70.010	4.710	1.00	33.39	heav	0
ATOM	841	CB	GLU	1105	39.844	69.164	4.367	1.00	58.00	heav	0
ATOM	842	CG	GLU	1105	38.516	69.887	4.140	1.00	58.00	heav	0
ATOM	843	CD	GLU	1105	37.460	69.113	3.355	1.00	58.00	heav	0
ATOM	844	OE1	GLU	1105	37.611	67.897	3.105	1.00	58.00	heav	0
ATOM	845	OE2	GLU	1105	36.475	69.758	2.973	1.00	58.00	heav	0
ATOM	846	C	GLU	1105	42.114	69.085	5.210	1.00	33.39	heav	0
ATOM	847	O	GLU	1105	42.070	68.742	6.381	1.00	58.00	heav	0
ATOM	848	N	THR	1106	43.044	68.625	4.404	1.00	2.00	heav	0
ATOM	849	CA	THR	1106	44.022	67.652	4.854	1.00	2.00	heav	0
ATOM	850	CB	THR	1106	44.847	68.376	5.896	1.00	43.96	heav	0
ATOM	851	OG1	THR	1106	45.440	69.360	5.098	1.00	43.96	heav	0
ATOM	852	CG2	THR	1106	45.980	67.681	6.574	1.00	43.96	heav	0
ATOM	853	C	THR	1106	43.506	66.328	5.369	1.00	2.00	heav	0
ATOM	854	O	THR	1106	44.403	65.580	5.724	1.00	43.96	heav	0
ATOM	855	N	TYR	1107	42.258	65.887	5.447	1.00	2.00	heav	0
ATOM	856	CA	TYR	1107	42.068	64.623	6.096	1.00	2.00	heav	0
ATOM	857	CB	TYR	1107	41.471	64.883	7.422	1.00	23.49	heav	0
ATOM	858	CG	TYR	1107	40.093	65.394	7.340	1.00	23.49	heav	0
ATOM	859	CD1	TYR	1107	39.885	66.745	7.238	1.00	23.49	heav	0
ATOM	860	CE1	TYR	1107	38.584	67.193	7.123	1.00	23.49	heav	0
ATOM	861	CD2	TYR	1107	39.060	64.480	7.332	1.00	23.49	heav	0
ATOM	862	CE2	TYR	1107	37.764	64.923	7.209	1.00	23.49	heav	0
ATOM	863	CZ	TYR	1107	37.544	66.274	7.108	1.00	23.49	heav	0
ATOM	864	OH	TYR	1107	36.244	66.704	6.972	1.00	23.49	heav	0
ATOM	865	C	TYR	1107	41.246	63.629	5.317	1.00	2.00	heav	0
ATOM	866	O	TYR	1107	40.422	63.989	4.449	1.00	23.49	heav	0
ATOM	867	N	PHE	1108	41.499	62.370	5.679	1.00	2.00	heav	0
ATOM	868	CA	PHE	1108	40.923	61.258	4.963	1.00	2.00	heav	0
ATOM	869	CB	PHE	1108	41.703	59.996	5.275	1.00	12.69	heav	0
ATOM	870	CG	PHE	1108	43.179	60.006	4.955	1.00	12.69	heav	0
ATOM	871	CD1	PHE	1108	43.945	58.978	5.373	1.00	12.69	heav	0
ATOM	872	CD2	PHE	1108	43.782	60.972	4.215	1.00	12.69	heav	0
ATOM	873	CE1	PHE	1108	45.273	58.924	5.030	1.00	12.69	heav	0
ATOM	874	CE2	PHE	1108	45.119	60.913	3.870	1.00	12.69	heav	0
ATOM	875	CZ	PHE	1108	45.883	59.885	4.275	1.00	12.69	heav	0
ATOM	876	C	PHE	1108	39.466	61.097	5.343	1.00	2.00	heav	0
ATOM	877	O	PHE	1108	39.132	60.447	6.333	1.00	12.69	heav	0
ATOM	878	N	ASP	1109	38.611	61.682	4.518	1.00	2.00	heav	0
ATOM	879	CA	ASP	1109	37.185	61.635	4.735	1.00	2.00	heav	0
ATOM	880	CB	ASP	1109	36.579	62.924	4.235	1.00	49.35	heav	0
ATOM	881	CG	ASP	1109	36.867	63.304	2.792	1.00	49.35	heav	0
ATOM	882	OD1	ASP	1109	36.603	64.448	2.437	1.00	49.35	heav	0

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ATOM	883	OD2	ASP	1109	37.344	62.481	2.017	1.00	49.35	heav	0
ATOM	884	C	ASP	1109	36.373	60.479	4.176	1.00	2.00	heav	0
ATOM	885	O	ASP	1109	35.267	60.283	4.659	1.00	49.35	heav	0
ATOM	886	N	VAL	1110	36.752	59.713	3.161	1.00	28.72	heav	0
ATOM	887	CA	VAL	1110	35.980	58.530	2.727	1.00	28.72	heav	0
ATOM	888	CB	VAL	1110	35.392	58.673	1.324	1.00	29.97	heav	0
ATOM	889	CG1	VAL	1110	34.679	57.410	0.864	1.00	29.97	heav	0
ATOM	890	CG2	VAL	1110	34.397	59.799	1.375	1.00	29.97	heav	0
ATOM	891	C	VAL	1110	36.973	57.388	2.689	1.00	28.72	heav	0
ATOM	892	O	VAL	1110	38.139	57.685	2.387	1.00	29.97	heav	0
ATOM	893	N	TRP	1111	36.582	56.136	2.941	1.00	2.00	heav	0
ATOM	894	CA	TRP	1111	37.558	55.058	3.055	1.00	2.00	heav	0
ATOM	895	CB	TRP	1111	37.918	54.726	4.573	1.00	2.00	heav	0
ATOM	896	CG	TRP	1111	38.793	55.657	5.403	1.00	2.00	heav	0
ATOM	897	CD2	TRP	1111	40.051	55.363	5.838	1.00	2.00	heav	0
ATOM	898	CE2	TRP	1111	40.432	56.564	6.415	1.00	2.00	heav	0
ATOM	899	CE3	TRP	1111	40.910	54.284	5.820	1.00	2.00	heav	0
ATOM	900	CD1	TRP	1111	38.419	56.934	5.713	1.00	2.00	heav	0
ATOM	901	NE1	TRP	1111	39.449	57.472	6.319	1.00	2.00	heav	0
ATOM	902	CZ2	TRP	1111	41.668	56.716	6.987	1.00	2.00	heav	0
ATOM	903	CZ3	TRP	1111	42.164	54.421	6.387	1.00	2.00	heav	0
ATOM	904	CH2	TRP	1111	42.518	55.634	6.955	1.00	2.00	heav	0
ATOM	905	C	TRP	1111	36.908	53.827	2.446	1.00	2.00	heav	0
ATOM	906	O	TRP	1111	35.755	53.569	2.794	1.00	2.00	heav	0
ATOM	907	N	GLY	1112	37.447	52.984	1.571	1.00	12.84	heav	0
ATOM	908	CA	GLY	1112	36.705	51.770	1.191	1.00	12.84	heav	0
ATOM	909	C	GLY	1112	36.651	50.790	2.361	1.00	12.84	heav	0
ATOM	910	O	GLY	1112	37.281	51.026	3.389	1.00	25.02	heav	0
ATOM	911	N	GLN	1113	35.945	49.663	2.278	1.00	2.00	heav	0
ATOM	912	CA	GLN	1113	35.854	48.686	3.383	1.00	2.00	heav	0
ATOM	913	CB	GLN	1113	34.860	47.592	2.946	1.00	96.01	heav	0
ATOM	914	CG	GLN	1113	34.927	47.027	1.484	1.00	96.01	heav	0
ATOM	915	CD	GLN	1113	36.132	46.153	1.052	1.00	96.01	heav	0
ATOM	916	OE1	GLN	1113	37.013	46.618	0.310	1.00	96.01	heav	0
ATOM	917	NE2	GLN	1113	36.260	44.899	1.500	1.00	96.01	heav	0
ATOM	918	C	GLN	1113	37.212	48.077	3.791	1.00	2.00	heav	0
ATOM	919	O	GLN	1113	37.493	47.806	4.953	1.00	96.01	heav	0
ATOM	920	N	GLY	1114	37.984	47.877	2.708	1.00	2.00	heav	0
ATOM	921	CA	GLY	1114	39.290	47.280	2.719	1.00	2.00	heav	0
ATOM	922	C	GLY	1114	39.280	45.805	2.363	1.00	2.00	heav	0
ATOM	923	O	GLY	1114	38.427	45.051	2.850	1.00	26.00	heav	0
ATOM	924	N	THR	1115	40.126	45.286	1.481	1.00	2.00	heav	0
ATOM	925	CA	THR	1115	40.163	43.845	1.322	1.00	2.00	heav	0
ATOM	926	CB	THR	1115	40.508	43.365	-0.044	1.00	19.22	heav	0
ATOM	927	OG1	THR	1115	41.294	44.425	-0.578	1.00	19.22	heav	0
ATOM	928	CG2	THR	1115	39.306	42.953	-0.870	1.00	19.22	heav	0
ATOM	929	C	THR	1115	41.342	43.503	2.171	1.00	2.00	heav	0
ATOM	930	O	THR	1115	42.276	44.274	2.451	1.00	19.22	heav	0
ATOM	931	N	THR	1116	41.257	42.228	2.401	1.00	15.39	heav	0
ATOM	932	CA	THR	1116	42.235	41.513	3.166	1.00	15.39	heav	0
ATOM	933	CB	THR	1116	41.444	40.598	4.034	1.00	46.07	heav	0
ATOM	934	OG1	THR	1116	40.417	41.391	4.629	1.00	46.07	heav	0
ATOM	935	CG2	THR	1116	42.281	39.970	5.098	1.00	46.07	heav	0
ATOM	936	C	THR	1116	43.112	40.790	2.162	1.00	15.39	heav	0
ATOM	937	O	THR	1116	42.637	40.494	1.061	1.00	46.07	heav	0
ATOM	938	N	VAL	1117	44.376	40.570	2.512	1.00	16.17	heav	0
ATOM	939	CA	VAL	1117	45.346	39.919	1.667	1.00	16.17	heav	0
ATOM	940	CB	VAL	1117	46.247	40.906	0.927	1.00	16.56	heav	0
ATOM	941	CG1	VAL	1117	47.226	40.144	0.034	1.00	16.56	heav	0
ATOM	942	CG2	VAL	1117	45.456	41.746	-0.017	1.00	16.56	heav	0
ATOM	943	C	VAL	1117	46.247	39.130	2.599	1.00	16.17	heav	0
ATOM	944	O	VAL	1117	46.831	39.721	3.530	1.00	16.56	heav	0
ATOM	945	N	THR	1118	46.371	37.821	2.294	1.00	22.92	heav	0
ATOM	946	CA	THR	1118	47.159	36.856	3.028	1.00	22.92	heav	0
ATOM	947	CB	THR	1118	46.265	35.688	3.503	1.00	25.71	heav	0
ATOM	948	OG1	THR	1118	44.962	36.173	3.839	1.00	25.71	heav	0
ATOM	949	CG2	THR	1118	46.754	35.097	4.805	1.00	25.71	heav	0

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ATOM	950	C	THR	1118	48.213	36.381	2.044	1.00	22.92	heav	0
ATOM	951	O	THR	1118	47.955	35.953	0.918	1.00	25.71	heav	0
ATOM	952	N	VAL	1119	49.466	36.579	2.402	1.00	2.00	heav	0
ATOM	953	CA	VAL	1119	50.598	36.121	1.611	1.00	2.00	heav	0
ATOM	954	CB	VAL	1119	51.790	36.988	1.852	1.00	12.47	heav	0
ATOM	955	CG1	VAL	1119	52.919	36.554	1.005	1.00	12.47	heav	0
ATOM	956	CG2	VAL	1119	51.448	38.378	1.474	1.00	12.47	heav	0
ATOM	957	C	VAL	1119	50.868	34.746	2.175	1.00	2.00	heav	0
ATOM	958	O	VAL	1119	51.188	34.640	3.357	1.00	12.47	heav	0
ATOM	959	N	SER	1120	50.765	33.655	1.457	1.00	28.74	heav	0
ATOM	960	CA	SER	1120	50.947	32.339	2.045	1.00	28.74	heav	0
ATOM	961	CB	SER	1120	49.765	31.933	2.937	1.00	61.81	heav	0
ATOM	962	OG	SER	1120	49.943	30.700	3.638	1.00	61.81	heav	0
ATOM	963	C	SER	1120	51.022	31.365	0.893	1.00	28.74	heav	0
ATOM	964	O	SER	1120	50.524	31.591	-0.219	1.00	61.81	heav	0
ATOM	965	N	SER	1121	51.706	30.266	1.177	1.00	41.68	heav	0
ATOM	966	CA	SER	1121	51.825	29.217	0.188	1.00	41.68	heav	0
ATOM	967	CB	SER	1121	53.166	28.530	0.420	1.00	82.27	heav	0
ATOM	968	OG	SER	1121	53.590	28.698	1.779	1.00	82.27	heav	0
ATOM	969	C	SER	1121	50.635	28.259	0.317	1.00	41.68	heav	0
ATOM	970	O	SER	1121	50.445	27.429	-0.565	1.00	82.27	heav	0
ATOM	971	N	ALA	1122	49.795	28.335	1.375	1.00	2.00	heav	0
ATOM	972	CA	ALA	1122	48.665	27.432	1.542	1.00	2.00	heav	0
ATOM	973	CB	ALA	1122	48.090	27.705	2.887	1.00	27.15	heav	0
ATOM	974	C	ALA	1122	47.545	27.479	0.474	1.00	2.00	heav	0
ATOM	975	O	ALA	1122	47.463	28.362	-0.401	1.00	27.15	heav	0
ATOM	976	N	LYS	1123	46.615	26.522	0.574	1.00	34.06	heav	0
ATOM	977	CA	LYS	1123	45.573	26.360	-0.429	1.00	34.06	heav	0
ATOM	978	CB	LYS	1123	45.430	24.851	-0.644	1.00	83.00	heav	0
ATOM	979	CG	LYS	1123	44.808	24.347	-1.950	1.00	83.00	heav	0
ATOM	980	CD	LYS	1123	43.287	24.093	-1.988	1.00	83.00	heav	0
ATOM	981	CE	LYS	1123	42.841	22.814	-1.251	1.00	83.00	heav	0
ATOM	982	NZ	LYS	1123	41.387	22.649	-1.202	1.00	83.00	heav	0
ATOM	983	C	LYS	1123	44.303	27.005	0.096	1.00	34.06	heav	0
ATOM	984	O	LYS	1123	44.023	26.895	1.298	1.00	83.00	heav	0
ATOM	985	N	THR	1124	43.551	27.696	-0.765	1.00	33.70	heav	0
ATOM	986	CA	THR	1124	42.280	28.227	-0.297	1.00	33.70	heav	0
ATOM	987	CB	THR	1124	41.621	29.360	-1.223	1.00	35.73	heav	0
ATOM	988	OG1	THR	1124	40.807	28.828	-2.250	1.00	35.73	heav	0
ATOM	989	CG2	THR	1124	42.691	30.186	-1.872	1.00	35.73	heav	0
ATOM	990	C	THR	1124	41.352	27.020	-0.233	1.00	33.70	heav	0
ATOM	991	O	THR	1124	41.157	26.308	-1.218	1.00	35.73	heav	0
ATOM	992	N	THR	1125	40.828	26.716	0.929	1.00	39.54	heav	0
ATOM	993	CA	THR	1125	40.022	25.543	1.139	1.00	39.54	heav	0
ATOM	994	CB	THR	1125	40.764	24.726	2.179	1.00	49.95	heav	0
ATOM	995	OG1	THR	1125	42.083	24.559	1.676	1.00	49.95	heav	0
ATOM	996	CG2	THR	1125	40.079	23.426	2.486	1.00	49.95	heav	0
ATOM	997	C	THR	1125	38.683	26.100	1.618	1.00	39.54	heav	0
ATOM	998	O	THR	1125	38.629	27.065	2.404	1.00	49.95	heav	0
ATOM	999	N	PRO	1126	37.558	25.608	1.132	1.00	24.65	heav	0
ATOM	1000	CD	PRO	1126	37.511	24.647	0.055	1.00	41.42	heav	0
ATOM	1001	CA	PRO	1126	36.245	26.134	1.500	1.00	24.65	heav	0
ATOM	1002	CB	PRO	1126	35.408	25.723	0.311	1.00	41.42	heav	0
ATOM	1003	CG	PRO	1126	36.028	24.407	-0.084	1.00	41.42	heav	0
ATOM	1004	C	PRO	1126	35.761	25.650	2.857	1.00	24.65	heav	0
ATOM	1005	O	PRO	1126	36.314	24.659	3.334	1.00	41.42	heav	0
ATOM	1006	N	PRO	1127	34.785	26.306	3.514	1.00	14.53	heav	0
ATOM	1007	CD	PRO	1127	34.101	27.497	3.036	1.00	14.98	heav	0
ATOM	1008	CA	PRO	1127	34.351	25.988	4.861	1.00	14.53	heav	0
ATOM	1009	CB	PRO	1127	33.961	27.337	5.362	1.00	14.98	heav	0
ATOM	1010	CG	PRO	1127	33.317	28.016	4.202	1.00	14.98	heav	0
ATOM	1011	C	PRO	1127	33.277	24.916	5.003	1.00	14.53	heav	0
ATOM	1012	O	PRO	1127	32.455	24.769	4.083	1.00	14.98	heav	0
ATOM	1013	N	SER	1128	33.278	24.112	6.094	1.00	2.00	heav	0
ATOM	1014	CA	SER	1128	32.170	23.199	6.420	1.00	2.00	heav	0
ATOM	1015	CB	SER	1128	32.643	21.935	7.092	1.00	44.54	heav	0
ATOM	1016	OG	SER	1128	33.627	21.224	6.369	1.00	44.54	heav	0

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ATOM	1017	C	SER	1128	31.288	23.935	7.417	1.00	2.00	heav	0
ATOM	1018	O	SER	1128	31.814	24.516	8.370	1.00	44.54	heav	0
ATOM	1019	N	VAL	1129	29.976	23.996	7.265	1.00	2.00	heav	0
ATOM	1020	CA	VAL	1129	29.142	24.692	8.232	1.00	2.00	heav	0
ATOM	1021	CB	VAL	1129	28.189	25.566	7.528	1.00	13.46	heav	0
ATOM	1022	CG1	VAL	1129	27.505	26.457	8.486	1.00	13.46	heav	0
ATOM	1023	CG2	VAL	1129	28.954	26.398	6.585	1.00	13.46	heav	0
ATOM	1024	C	VAL	1129	28.397	23.627	8.977	1.00	2.00	heav	0
ATOM	1025	O	VAL	1129	27.791	22.749	8.377	1.00	13.46	heav	0
ATOM	1026	N	TYR	1130	28.464	23.619	10.274	1.00	2.00	heav	0
ATOM	1027	CA	TYR	1130	27.798	22.609	11.078	1.00	2.00	heav	0
ATOM	1028	CB	TYR	1130	28.813	21.879	11.878	1.00	23.66	heav	0
ATOM	1029	CG	TYR	1130	29.794	21.125	10.982	1.00	23.66	heav	0
ATOM	1030	CD1	TYR	1130	29.367	20.277	9.987	1.00	23.66	heav	0
ATOM	1031	CE1	TYR	1130	30.284	19.581	9.242	1.00	23.66	heav	0
ATOM	1032	CD2	TYR	1130	31.129	21.275	11.218	1.00	23.66	heav	0
ATOM	1033	CE2	TYR	1130	32.049	20.580	10.482	1.00	23.66	heav	0
ATOM	1034	CZ	TYR	1130	31.630	19.732	9.488	1.00	23.66	heav	0
ATOM	1035	OH	TYR	1130	32.571	19.056	8.719	1.00	23.66	heav	0
ATOM	1036	C	TYR	1130	26.843	23.307	11.986	1.00	2.00	heav	0
ATOM	1037	O	TYR	1130	27.188	24.348	12.538	1.00	23.66	heav	0
ATOM	1038	N	PRO	1131	25.612	22.891	12.102	1.00	2.00	heav	0
ATOM	1039	CD	PRO	1131	25.058	21.739	11.438	1.00	29.81	heav	0
ATOM	1040	CA	PRO	1131	24.618	23.587	12.890	1.00	2.00	heav	0
ATOM	1041	CB	PRO	1131	23.326	23.154	12.290	1.00	29.81	heav	0
ATOM	1042	CG	PRO	1131	23.613	21.709	11.978	1.00	29.81	heav	0
ATOM	1043	C	PRO	1131	24.805	23.179	14.345	1.00	2.00	heav	0
ATOM	1044	O	PRO	1131	25.228	22.055	14.637	1.00	29.81	heav	0
ATOM	1045	N	LEU	1132	24.511	24.075	15.285	1.00	21.13	heav	0
ATOM	1046	CA	LEU	1132	24.664	23.803	16.694	1.00	21.13	heav	0
ATOM	1047	CB	LEU	1132	25.673	24.767	17.242	1.00	20.96	heav	0
ATOM	1048	CG	LEU	1132	27.032	24.663	16.569	1.00	20.96	heav	0
ATOM	1049	CD1	LEU	1132	27.896	25.786	17.103	1.00	20.96	heav	0
ATOM	1050	CD2	LEU	1132	27.618	23.257	16.771	1.00	20.96	heav	0
ATOM	1051	C	LEU	1132	23.306	24.025	17.270	1.00	21.13	heav	0
ATOM	1052	O	LEU	1132	22.769	25.139	17.329	1.00	20.96	heav	0
ATOM	1053	N	ALA	1133	22.758	22.875	17.570	1.00	18.57	heav	0
ATOM	1054	CA	ALA	1133	21.413	22.867	18.062	1.00	18.57	heav	0
ATOM	1055	CB	ALA	1133	20.568	21.897	17.338	1.00	2.00	heav	0
ATOM	1056	C	ALA	1133	21.518	22.368	19.451	1.00	18.57	heav	0
ATOM	1057	O	ALA	1133	22.331	21.445	19.609	1.00	2.00	heav	0
ATOM	1058	N	PRO	1134	20.755	22.892	20.443	1.00	33.60	heav	0
ATOM	1059	CD	PRO	1134	19.560	23.739	20.288	1.00	21.48	heav	0
ATOM	1060	CA	PRO	1134	20.906	22.520	21.838	1.00	33.60	heav	0
ATOM	1061	CB	PRO	1134	19.829	23.253	22.598	1.00	21.48	heav	0
ATOM	1062	CG	PRO	1134	19.338	24.339	21.688	1.00	21.48	heav	0
ATOM	1063	C	PRO	1134	20.673	21.039	21.768	1.00	33.60	heav	0
ATOM	1064	O	PRO	1134	19.801	20.508	21.039	1.00	21.48	heav	0
ATOM	1065	N	GLY	1135	21.695	20.419	22.331	1.00	61.30	heav	0
ATOM	1066	CA	GLY	1135	21.614	19.002	22.510	1.00	61.30	heav	0
ATOM	1067	C	GLY	1135	20.464	18.878	23.483	1.00	61.30	heav	0
ATOM	1068	O	GLY	1135	20.466	19.585	24.494	1.00	66.59	heav	0
ATOM	1069	N	SER	1136	19.395	18.249	22.999	1.00	88.88	heav	0
ATOM	1070	CA	SER	1136	18.232	17.867	23.791	1.00	88.88	heav	0
ATOM	1071	CB	SER	1136	18.509	16.368	24.128	1.00	91.25	heav	0
ATOM	1072	OG	SER	1136	19.842	15.854	23.901	1.00	91.25	heav	0
ATOM	1073	C	SER	1136	17.722	18.663	25.028	1.00	88.88	heav	0
ATOM	1074	O	SER	1136	17.489	18.063	26.091	1.00	91.25	heav	0
ATOM	1075	N	ALA	1137	17.460	19.990	24.962	1.00	104.47	heav	0
ATOM	1076	CA	ALA	1137	16.976	20.763	26.122	1.00	104.47	heav	0
ATOM	1077	CB	ALA	1137	18.180	21.328	26.919	1.00	62.26	heav	0
ATOM	1078	C	ALA	1137	16.010	21.937	25.854	1.00	104.47	heav	0
ATOM	1079	O	ALA	1137	16.432	23.066	25.588	1.00	62.26	heav	0
ATOM	1080	N	ALA	1138	14.684	21.722	25.864	1.00	89.53	heav	0
ATOM	1081	CA	ALA	1138	13.707	22.813	25.749	1.00	89.53	heav	0
ATOM	1082	CB	ALA	1138	12.474	22.348	24.954	1.00	64.58	heav	0
ATOM	1083	C	ALA	1138	13.286	23.253	27.172	1.00	89.53	heav	0

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ATOM	1084	O	ALA	1138	13.830	22.733	28.166	1.00	64.58	heav	O
ATOM	1085	N	GLN	1139	12.355	24.224	27.338	1.00	100.44	heav	O
ATOM	1086	CA	GLN	1139	11.948	24.806	28.640	1.00	100.44	heav	O
ATOM	1087	CB	GLN	1139	11.304	23.725	29.550	1.00	81.13	heav	O
ATOM	1088	CG	GLN	1139	.931	23.248	29.066	1.00	81.13	heav	O
ATOM	1089	CD	GLN	1139	.929	22.427	27.775	1.00	81.13	heav	O
ATOM	1090	OE1	GLN	1139	.808	22.925	26.651	1.00	81.13	heav	O
ATOM	1091	NE2	GLN	1139	10.115	21.125	27.885	1.00	81.13	heav	O
ATOM	1092	C	GLN	1139	13.128	25.466	29.383	1.00	100.44	heav	O
ATOM	1093	O	GLN	1139	13.206	25.637	30.606	1.00	81.13	heav	O
ATOM	1094	N	THR	1140	14.082	25.896	28.566	1.00	90.94	heav	O
ATOM	1095	CA	THR	1140	15.314	26.516	29.002	1.00	90.94	heav	O
ATOM	1096	CB	THR	1140	16.469	26.223	27.977	1.00	98.35	heav	O
ATOM	1097	OG1	THR	1140	15.906	25.446	26.917	1.00	98.35	heav	O
ATOM	1098	CG2	THR	1140	17.671	25.515	28.634	1.00	98.35	heav	O
ATOM	1099	C	THR	1140	15.058	28.010	29.106	1.00	90.94	heav	O
ATOM	1100	O	THR	1140	15.461	28.819	28.270	1.00	98.35	heav	O
ATOM	1101	N	ASN	1141	14.406	28.380	30.200	1.00	85.64	heav	O
ATOM	1102	CA	ASN	1141	14.069	29.781	30.476	1.00	85.64	heav	O
ATOM	1103	CB	ASN	1141	15.456	30.521	30.711	1.00	122.20	heav	O
ATOM	1104	CG	ASN	1141	15.543	31.983	31.170	1.00	122.20	heav	O
ATOM	1105	OD1	ASN	1141	15.338	32.905	30.385	1.00	122.20	heav	O
ATOM	1106	ND2	ASN	1141	15.918	32.307	32.400	1.00	122.20	heav	O
ATOM	1107	C	ASN	1141	13.190	30.356	29.334	1.00	85.64	heav	O
ATOM	1108	O	ASN	1141	12.259	29.645	28.940	1.00	122.20	heav	O
ATOM	1109	N	SER	1142	13.316	31.608	28.883	1.00	46.69	heav	O
ATOM	1110	CA	SER	1142	12.573	32.217	27.795	1.00	46.69	heav	O
ATOM	1111	CB	SER	1142	12.199	33.637	28.112	1.00	86.63	heav	O
ATOM	1112	OG	SER	1142	13.339	34.405	28.548	1.00	86.63	heav	O
ATOM	1113	C	SER	1142	13.436	32.293	26.554	1.00	46.69	heav	O
ATOM	1114	O	SER	1142	12.932	32.741	25.528	1.00	86.63	heav	O
ATOM	1115	N	MET	1143	14.750	32.055	26.618	1.00	56.61	heav	O
ATOM	1116	CA	MET	1143	15.661	32.160	25.472	1.00	56.61	heav	O
ATOM	1117	CB	MET	1143	16.678	33.221	25.764	1.00	48.34	heav	O
ATOM	1118	CG	MET	1143	16.155	34.540	26.263	1.00	48.34	heav	O
ATOM	1119	SD	MET	1143	15.612	35.574	24.890	1.00	48.34	heav	O
ATOM	1120	CE	MET	1143	14.095	36.366	25.358	1.00	48.34	heav	O
ATOM	1121	C	MET	1143	16.443	30.890	25.062	1.00	56.61	heav	O
ATOM	1122	O	MET	1143	16.797	30.045	25.873	1.00	48.34	heav	O
ATOM	1123	N	VAL	1144	16.831	30.712	23.810	1.00	23.87	heav	O
ATOM	1124	CA	VAL	1144	17.617	29.573	23.311	1.00	23.87	heav	O
ATOM	1125	CB	VAL	1144	16.887	28.647	22.339	1.00	15.07	heav	O
ATOM	1126	CG1	VAL	1144	16.157	27.640	23.115	1.00	15.07	heav	O
ATOM	1127	CG2	VAL	1144	15.791	29.353	21.579	1.00	15.07	heav	O
ATOM	1128	C	VAL	1144	18.758	30.161	22.522	1.00	23.87	heav	O
ATOM	1129	O	VAL	1144	18.574	31.193	21.859	1.00	15.07	heav	O
ATOM	1130	N	THR	1145	19.944	29.585	22.684	1.00	30.91	heav	O
ATOM	1131	CA	THR	1145	21.102	30.003	21.920	1.00	30.91	heav	O
ATOM	1132	CB	THR	1145	22.406	30.119	22.769	1.00	56.39	heav	O
ATOM	1133	OG1	THR	1145	22.335	31.295	23.563	1.00	56.39	heav	O
ATOM	1134	CG2	THR	1145	23.647	30.305	21.928	1.00	56.39	heav	O
ATOM	1135	C	THR	1145	21.248	28.858	20.951	1.00	30.91	heav	O
ATOM	1136	O	THR	1145	20.971	27.708	21.319	1.00	56.39	heav	O
ATOM	1137	N	LEU	1146	21.572	29.195	19.702	1.00	2.00	heav	O
ATOM	1138	CA	LEU	1146	21.851	28.205	18.682	1.00	2.00	heav	O
ATOM	1139	CB	LEU	1146	20.658	28.082	17.770	1.00	13.92	heav	O
ATOM	1140	CG	LEU	1146	19.279	27.808	18.384	1.00	13.92	heav	O
ATOM	1141	CD1	LEU	1146	18.640	29.058	18.932	1.00	13.92	heav	O
ATOM	1142	CD2	LEU	1146	18.272	27.540	17.301	1.00	13.92	heav	O
ATOM	1143	C	LEU	1146	23.068	28.787	17.973	1.00	2.00	heav	O
ATOM	1144	O	LEU	1146	23.345	29.998	18.149	1.00	13.92	heav	O
ATOM	1145	N	GLY	1147	23.855	27.993	17.236	1.00	2.00	heav	O
ATOM	1146	CA	GLY	1147	24.998	28.592	16.605	1.00	2.00	heav	O
ATOM	1147	C	GLY	1147	25.408	27.884	15.346	1.00	2.00	heav	O
ATOM	1148	O	GLY	1147	24.737	26.941	14.961	1.00	29.39	heav	O
ATOM	1149	N	CYS	1148	26.504	28.320	14.711	1.00	2.00	heav	O
ATOM	1150	CA	CYS	1148	27.071	27.688	13.537	1.00	2.00	heav	O

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ATOM	1151	C	CYS	1148	28.547	27.542	13.736	1.00	2.00	heav	0
ATOM	1152	O	CYS	1148	29.212	28.400	14.313	1.00	26.31	heav	0
ATOM	1153	CB	CYS	1148	26.831	28.519	12.301	1.00	26.31	heav	0
ATOM	1154	SG	CYS	1148	25.193	28.137	11.637	1.00	26.31	heav	0
ATOM	1155	N	LEU	1149	29.012	26.401	13.311	1.00	2.00	heav	0
ATOM	1156	CA	LEU	1149	30.393	26.052	13.377	1.00	2.00	heav	0
ATOM	1157	CB	LEU	1149	30.494	24.648	13.894	1.00	12.90	heav	0
ATOM	1158	CG	LEU	1149	31.843	24.029	14.244	1.00	12.90	heav	0
ATOM	1159	CD1	LEU	1149	32.659	23.912	13.021	1.00	12.90	heav	0
ATOM	1160	CD2	LEU	1149	32.619	24.888	15.202	1.00	12.90	heav	0
ATOM	1161	C	LEU	1149	30.883	26.164	11.940	1.00	2.00	heav	0
ATOM	1162	O	LEU	1149	30.324	25.515	11.060	1.00	12.90	heav	0
ATOM	1163	N	VAL	1150	31.926	26.928	11.669	1.00	14.74	heav	0
ATOM	1164	CA	VAL	1150	32.425	27.102	10.327	1.00	14.74	heav	0
ATOM	1165	CB	VAL	1150	32.320	28.574	9.962	1.00	19.45	heav	0
ATOM	1166	CG1	VAL	1150	33.002	28.884	8.649	1.00	19.45	heav	0
ATOM	1167	CG2	VAL	1150	30.880	28.896	9.727	1.00	19.45	heav	0
ATOM	1168	C	VAL	1150	33.856	26.629	10.453	1.00	14.74	heav	0
ATOM	1169	O	VAL	1150	34.727	27.392	10.900	1.00	19.45	heav	0
ATOM	1170	N	LYS	1151	34.126	25.380	10.073	1.00	14.64	heav	0
ATOM	1171	CA	LYS	1151	35.406	24.736	10.362	1.00	14.64	heav	0
ATOM	1172	CB	LYS	1151	35.159	23.353	10.969	1.00	50.78	heav	0
ATOM	1173	CG	LYS	1151	36.362	22.795	11.675	1.00	50.78	heav	0
ATOM	1174	CD	LYS	1151	36.216	21.452	12.372	1.00	50.78	heav	0
ATOM	1175	CE	LYS	1151	37.493	21.231	13.188	1.00	50.78	heav	0
ATOM	1176	NZ	LYS	1151	37.618	22.156	14.322	1.00	50.78	heav	0
ATOM	1177	C	LYS	1151	36.281	24.558	9.135	1.00	14.64	heav	0
ATOM	1178	O	LYS	1151	35.765	24.152	8.085	1.00	50.78	heav	0
ATOM	1179	N	GLY	1152	37.579	24.823	9.242	1.00	37.18	heav	0
ATOM	1180	CA	GLY	1152	38.555	24.440	8.236	1.00	37.18	heav	0
ATOM	1181	C	GLY	1152	38.519	25.110	6.886	1.00	37.18	heav	0
ATOM	1182	O	GLY	1152	38.626	24.405	5.892	1.00	21.57	heav	0
ATOM	1183	N	TYR	1153	38.414	26.429	6.787	1.00	2.00	heav	0
ATOM	1184	CA	TYR	1153	38.473	27.135	5.493	1.00	2.00	heav	0
ATOM	1185	CB	TYR	1153	37.346	28.079	5.369	1.00	2.00	heav	0
ATOM	1186	CG	TYR	1153	37.345	29.095	6.478	1.00	2.00	heav	0
ATOM	1187	CD1	TYR	1153	38.016	30.264	6.252	1.00	2.00	heav	0
ATOM	1188	CE1	TYR	1153	38.025	31.249	7.212	1.00	2.00	heav	0
ATOM	1189	CD2	TYR	1153	36.674	28.879	7.665	1.00	2.00	heav	0
ATOM	1190	CE2	TYR	1153	36.662	29.854	8.636	1.00	2.00	heav	0
ATOM	1191	CZ	TYR	1153	37.344	31.030	8.375	1.00	2.00	heav	0
ATOM	1192	OH	TYR	1153	37.312	32.109	9.212	1.00	2.00	heav	0
ATOM	1193	C	TYR	1153	39.768	27.945	5.455	1.00	2.00	heav	0
ATOM	1194	O	TYR	1153	40.255	28.200	6.575	1.00	2.00	heav	0
ATOM	1195	N	PHE	1154	40.277	28.464	4.322	1.00	5.05	heav	0
ATOM	1196	CA	PHE	1154	41.507	29.285	4.227	1.00	5.05	heav	0
ATOM	1197	CB	PHE	1154	42.745	28.495	4.072	1.00	2.00	heav	0
ATOM	1198	CG	PHE	1154	44.039	29.272	4.159	1.00	2.00	heav	0
ATOM	1199	CD1	PHE	1154	44.733	29.570	3.022	1.00	2.00	heav	0
ATOM	1200	CD2	PHE	1154	44.587	29.611	5.380	1.00	2.00	heav	0
ATOM	1201	CE1	PHE	1154	45.970	30.198	3.126	1.00	2.00	heav	0
ATOM	1202	CE2	PHE	1154	45.815	30.230	5.477	1.00	2.00	heav	0
ATOM	1203	CZ	PHE	1154	46.518	30.526	4.346	1.00	2.00	heav	0
ATOM	1204	C	PHE	1154	41.395	30.052	2.940	1.00	5.05	heav	0
ATOM	1205	O	PHE	1154	40.781	29.450	2.068	1.00	2.00	heav	0
ATOM	1206	N	CPR	1155	41.720	31.322	2.702	1.00	2.00	heav	0
ATOM	1207	CD	CPR	1155	41.286	32.054	1.535	1.00	5.66	heav	0
ATOM	1208	CA	CPR	1155	42.238	32.312	3.632	1.00	2.00	heav	0
ATOM	1209	CB	CPR	1155	42.793	33.416	2.837	1.00	5.66	heav	0
ATOM	1210	CG	CPR	1155	42.414	33.049	1.433	1.00	5.66	heav	0
ATOM	1211	C	CPR	1155	41.073	32.850	4.422	1.00	2.00	heav	0
ATOM	1212	O	CPR	1155	39.946	32.392	4.212	1.00	5.66	heav	0
ATOM	1213	N	GLU	1156	41.337	33.812	5.323	1.00	2.00	heav	0
ATOM	1214	CA	GLU	1156	40.258	34.589	5.928	1.00	2.00	heav	0
ATOM	1215	CB	GLU	1156	40.806	35.549	6.923	1.00	29.74	heav	0
ATOM	1216	CG	GLU	1156	40.663	35.087	8.361	1.00	29.74	heav	0
ATOM	1217	CD	GLU	1156	39.298	35.280	9.081	1.00	29.74	heav	0

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ATOM	1218	OE1	GLU	1156	39.275	35.948	10.138	1.00	29.74	heav	0
ATOM	1219	OE2	GLU	1156	38.267	34.742	8.621	1.00	29.74	heav	0
ATOM	1220	C	GLU	1156	39.687	35.367	4.757	1.00	2.00	heav	0
ATOM	1221	O	GLU	1156	40.355	35.391	3.719	1.00	29.74	heav	0
ATOM	1222	N	CPR	1157	38.527	35.987	4.711	1.00	21.40	heav	0
ATOM	1223	CD	CPR	1157	38.405	37.219	3.977	1.00	9.41	heav	0
ATOM	1224	CA	CPR	1157	37.498	36.074	5.719	1.00	21.40	heav	0
ATOM	1225	CB	CPR	1157	37.238	37.498	5.855	1.00	9.41	heav	0
ATOM	1226	CG	CPR	1157	37.116	37.841	4.440	1.00	9.41	heav	0
ATOM	1227	C	CPR	1157	36.218	35.332	5.370	1.00	21.40	heav	0
ATOM	1228	O	CPR	1157	36.097	34.830	4.237	1.00	9.41	heav	0
ATOM	1229	N	VAL	1158	35.285	35.276	6.329	1.00	2.00	heav	0
ATOM	1230	CA	VAL	1158	34.038	34.620	6.103	1.00	2.00	heav	0
ATOM	1231	CB	VAL	1158	33.993	33.336	6.933	1.00	2.00	heav	0
ATOM	1232	CG1	VAL	1158	32.669	32.695	6.701	1.00	2.00	heav	0
ATOM	1233	CG2	VAL	1158	34.904	32.265	6.421	1.00	2.00	heav	0
ATOM	1234	C	VAL	1158	33.017	35.648	6.569	1.00	2.00	heav	0
ATOM	1235	O	VAL	1158	33.240	36.474	7.472	1.00	2.00	heav	0
ATOM	1236	N	THR	1159	31.907	35.678	5.869	1.00	2.00	heav	0
ATOM	1237	CA	THR	1159	30.781	36.432	6.323	1.00	2.00	heav	0
ATOM	1238	CB	THR	1159	30.293	37.165	5.118	1.00	47.02	heav	0
ATOM	1239	OG1	THR	1159	31.120	38.314	5.111	1.00	47.02	heav	0
ATOM	1240	CG2	THR	1159	28.801	37.455	5.086	1.00	47.02	heav	0
ATOM	1241	C	THR	1159	29.806	35.396	6.858	1.00	2.00	heav	0
ATOM	1242	O	THR	1159	29.651	34.292	6.307	1.00	47.02	heav	0
ATOM	1243	N	VAL	1160	29.134	35.747	7.931	1.00	2.00	heav	0
ATOM	1244	CA	VAL	1160	28.091	34.871	8.377	1.00	2.00	heav	0
ATOM	1245	CB	VAL	1160	28.673	33.947	9.448	1.00	2.00	heav	0
ATOM	1246	CG1	VAL	1160	29.409	34.781	10.415	1.00	2.00	heav	0
ATOM	1247	CG2	VAL	1160	27.618	33.203	10.210	1.00	2.00	heav	0
ATOM	1248	C	VAL	1160	26.940	35.724	8.860	1.00	2.00	heav	0
ATOM	1249	O	VAL	1160	27.173	36.696	9.581	1.00	2.00	heav	0
ATOM	1250	N	THR	1161	25.718	35.488	8.396	1.00	2.00	heav	0
ATOM	1251	CA	THR	1161	24.607	36.235	8.917	1.00	2.00	heav	0
ATOM	1252	CB	THR	1161	23.980	37.107	7.843	1.00	12.33	heav	0
ATOM	1253	OG1	THR	1161	23.562	36.262	6.798	1.00	12.33	heav	0
ATOM	1254	CG2	THR	1161	24.939	38.151	7.349	1.00	12.33	heav	0
ATOM	1255	C	THR	1161	23.579	35.275	9.439	1.00	2.00	heav	0
ATOM	1256	O	THR	1161	23.723	34.077	9.225	1.00	12.33	heav	0
ATOM	1257	N	TRP	1162	22.579	35.781	10.126	1.00	22.46	heav	0
ATOM	1258	CA	TRP	1162	21.590	34.876	10.611	1.00	22.46	heav	0
ATOM	1259	CB	TRP	1162	21.509	35.002	12.079	1.00	2.00	heav	0
ATOM	1260	CG	TRP	1162	22.541	34.012	12.578	1.00	2.00	heav	0
ATOM	1261	CD2	TRP	1162	22.388	32.682	12.842	1.00	2.00	heav	0
ATOM	1262	CE2	TRP	1162	23.602	32.336	13.410	1.00	2.00	heav	0
ATOM	1263	CE3	TRP	1162	21.436	31.750	12.701	1.00	2.00	heav	0
ATOM	1264	CD1	TRP	1162	23.803	34.428	12.935	1.00	2.00	heav	0
ATOM	1265	NE1	TRP	1162	24.429	33.391	13.465	1.00	2.00	heav	0
ATOM	1266	CZ2	TRP	1162	23.915	31.068	13.863	1.00	2.00	heav	0
ATOM	1267	CZ3	TRP	1162	21.719	30.477	13.136	1.00	2.00	heav	0
ATOM	1268	CH2	TRP	1162	22.937	30.118	13.714	1.00	2.00	heav	0
ATOM	1269	C	TRP	1162	20.318	35.278	9.954	1.00	22.46	heav	0
ATOM	1270	O	TRP	1162	19.983	36.471	9.952	1.00	2.00	heav	0
ATOM	1271	N	ASN	1163	19.660	34.314	9.307	1.00	9.02	heav	0
ATOM	1272	CA	ASN	1163	18.405	34.502	8.605	1.00	9.02	heav	0
ATOM	1273	CB	ASN	1163	17.256	34.817	9.568	1.00	18.39	heav	0
ATOM	1274	CG	ASN	1163	16.513	33.626	10.110	1.00	18.39	heav	0
ATOM	1275	OD1	ASN	1163	16.962	32.489	10.038	1.00	18.39	heav	0
ATOM	1276	ND2	ASN	1163	15.355	33.854	10.680	1.00	18.39	heav	0
ATOM	1277	C	ASN	1163	18.643	35.694	7.703	1.00	9.02	heav	0
ATOM	1278	O	ASN	1163	18.028	36.732	7.880	1.00	18.39	heav	0
ATOM	1279	N	SER	1164	19.716	35.677	6.917	1.00	24.18	heav	0
ATOM	1280	CA	SER	1164	19.985	36.701	5.891	1.00	24.18	heav	0
ATOM	1281	CB	SER	1164	19.039	36.511	4.706	1.00	43.98	heav	0
ATOM	1282	OG	SER	1164	18.893	35.127	4.350	1.00	43.98	heav	0
ATOM	1283	C	SER	1164	19.881	38.137	6.344	1.00	24.18	heav	0
ATOM	1284	O	SER	1164	19.254	38.988	5.715	1.00	43.98	heav	0

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ATOM	1285	N	GLY	1165	20.404	38.344	7.543	1.00	16.20	heav	0
ATOM	1286	CA	GLY	1165	20.487	39.687	8.068	1.00	16.20	heav	0
ATOM	1287	C	GLY	1165	19.365	40.045	9.006	1.00	16.20	heav	0
ATOM	1288	O	GLY	1165	19.581	40.974	9.801	1.00	32.84	heav	0
ATOM	1289	N	SER	1166	18.228	39.315	8.940	1.00	15.60	heav	0
ATOM	1290	CA	SER	1166	17.714	39.586	9.736	1.00	15.60	heav	0
ATOM	1291	CB	SER	1166	15.823	38.686	9.381	1.00	44.88	heav	0
ATOM	1292	OG	SER	1166	15.608	38.354	8.010	1.00	44.88	heav	0
ATOM	1293	C	SER	1166	17.165	39.413	11.231	1.00	15.60	heav	0
ATOM	1294	O	SER	1166	16.419	40.002	12.018	1.00	44.88	heav	0
ATOM	1295	N	LEU	1167	18.007	38.476	11.653	1.00	25.34	heav	0
ATOM	1296	CA	LEU	1167	18.283	38.427	13.065	1.00	25.34	heav	0
ATOM	1297	CB	LEU	1167	18.453	36.992	13.496	1.00	33.91	heav	0
ATOM	1298	CG	LEU	1167	17.339	36.018	13.184	1.00	33.91	heav	0
ATOM	1299	CD1	LEU	1167	17.524	34.919	14.198	1.00	33.91	heav	0
ATOM	1300	CD2	LEU	1167	15.914	36.603	13.290	1.00	33.91	heav	0
ATOM	1301	C	LEU	1167	19.574	39.239	13.181	1.00	25.34	heav	0
ATOM	1302	O	LEU	1167	20.632	38.939	12.600	1.00	33.91	heav	0
ATOM	1303	N	SER	1168	19.406	40.358	13.874	1.00	55.04	heav	0
ATOM	1304	CA	SER	1168	20.489	41.299	14.061	1.00	55.04	heav	0
ATOM	1305	CB	SER	1168	19.981	42.667	13.578	1.00	72.64	heav	0
ATOM	1306	OG	SER	1168	19.380	42.696	12.276	1.00	72.64	heav	0
ATOM	1307	C	SER	1168	20.945	41.341	15.519	1.00	55.04	heav	0
ATOM	1308	O	SER	1168	22.082	41.691	15.841	1.00	72.64	heav	0
ATOM	1309	N	SER	1169	20.070	40.936	16.443	1.00	33.75	heav	0
ATOM	1310	CA	SER	1169	20.282	41.008	17.888	1.00	33.75	heav	0
ATOM	1311	CB	SER	1169	19.038	41.597	18.510	1.00	72.46	heav	0
ATOM	1312	OG	SER	1169	18.356	42.392	17.534	1.00	72.46	heav	0
ATOM	1313	C	SER	1169	20.533	39.622	18.442	1.00	33.75	heav	0
ATOM	1314	O	SER	1169	19.902	38.654	18.027	1.00	72.46	heav	0
ATOM	1315	N	GLY	1170	21.493	39.485	19.328	1.00	2.00	heav	0
ATOM	1316	CA	GLY	1170	21.726	38.191	19.948	1.00	2.00	heav	0
ATOM	1317	C	GLY	1170	22.836	37.397	19.298	1.00	2.00	heav	0
ATOM	1318	O	GLY	1170	23.306	36.364	19.802	1.00	57.43	heav	0
ATOM	1319	N	VAL	1171	23.239	37.954	18.188	1.00	17.93	heav	0
ATOM	1320	CA	VAL	1171	24.264	37.360	17.413	1.00	17.93	heav	0
ATOM	1321	CB	VAL	1171	23.987	37.895	16.038	1.00	21.68	heav	0
ATOM	1322	CG1	VAL	1171	24.461	39.362	15.936	1.00	21.68	heav	0
ATOM	1323	CG2	VAL	1171	24.682	37.024	15.039	1.00	21.68	heav	0
ATOM	1324	C	VAL	1171	25.662	37.681	17.963	1.00	17.93	heav	0
ATOM	1325	O	VAL	1171	25.908	38.796	18.433	1.00	21.68	heav	0
ATOM	1326	N	HIS	1172	26.586	36.719	17.981	1.00	14.15	heav	0
ATOM	1327	CA	HIS	1172	27.983	36.943	18.312	1.00	14.15	heav	0
ATOM	1328	CB	HIS	1172	28.459	36.363	19.588	1.00	25.27	heav	0
ATOM	1329	CG	HIS	1172	27.778	37.002	20.745	1.00	25.27	heav	0
ATOM	1330	CD2	HIS	1172	27.667	38.343	20.981	1.00	25.27	heav	0
ATOM	1331	ND1	HIS	1172	27.126	36.362	21.681	1.00	25.27	heav	0
ATOM	1332	CE1	HIS	1172	26.607	37.258	22.474	1.00	25.27	heav	0
ATOM	1333	NE2	HIS	1172	26.937	38.455	22.054	1.00	25.27	heav	0
ATOM	1334	C	HIS	1172	28.700	36.142	17.285	1.00	14.15	heav	0
ATOM	1335	O	HIS	1172	28.281	35.035	16.965	1.00	25.27	heav	0
ATOM	1336	N	THR	1173	29.808	36.671	16.829	1.00	2.00	heav	0
ATOM	1337	CA	THR	1173	30.553	35.970	15.823	1.00	2.00	heav	0
ATOM	1338	CB	THR	1173	29.993	36.597	14.529	1.00	21.58	heav	0
ATOM	1339	OG1	THR	1173	30.714	36.026	13.446	1.00	21.58	heav	0
ATOM	1340	CG2	THR	1173	30.054	38.143	14.563	1.00	21.58	heav	0
ATOM	1341	C	THR	1173	32.044	36.171	16.184	1.00	2.00	heav	0
ATOM	1342	O	THR	1173	32.596	37.277	16.347	1.00	21.58	heav	0
ATOM	1343	N	PHE	1174	32.635	35.011	16.462	1.00	2.00	heav	0
ATOM	1344	CA	PHE	1174	33.939	34.917	17.112	1.00	2.00	heav	0
ATOM	1345	CB	PHE	1174	34.014	33.675	17.957	1.00	22.42	heav	0
ATOM	1346	CG	PHE	1174	32.842	33.546	18.899	1.00	22.42	heav	0
ATOM	1347	CD1	PHE	1174	32.929	34.036	20.166	1.00	22.42	heav	0
ATOM	1348	CD2	PHE	1174	31.683	32.951	18.497	1.00	22.42	heav	0
ATOM	1349	CE1	PHE	1174	31.869	33.940	21.041	1.00	22.42	heav	0
ATOM	1350	CE2	PHE	1174	30.621	32.856	19.367	1.00	22.42	heav	0
ATOM	1351	CZ	PHE	1174	30.704	33.347	20.641	1.00	22.42	heav	0

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ATOM	1352	C	PHE	1174	35.067	34.864	16.107	1.00	2.00	heav	0
ATOM	1353	O	PHE	1174	34.914	34.226	15.054	1.00	22.42	heav	0
ATOM	1354	N	PRO	1175	36.191	35.551	16.372	1.00	2.00	heav	0
ATOM	1355	CD	PRO	1175	36.166	36.897	16.897	1.00	15.62	heav	0
ATOM	1356	CA	PRO	1175	37.364	35.587	15.521	1.00	2.00	heav	0
ATOM	1357	CB	PRO	1175	38.423	36.283	16.308	1.00	15.62	heav	0
ATOM	1358	CG	PRO	1175	37.624	37.149	17.209	1.00	15.62	heav	0
ATOM	1359	C	PRO	1175	37.789	34.231	15.110	1.00	2.00	heav	0
ATOM	1360	O	PRO	1175	37.685	33.281	15.898	1.00	15.62	heav	0
ATOM	1361	N	ALA	1176	38.162	34.179	13.839	1.00	2.00	heav	0
ATOM	1362	CA	ALA	1176	38.647	32.928	13.311	1.00	2.00	heav	0
ATOM	1363	CB	ALA	1176	38.916	33.044	11.858	1.00	28.97	heav	0
ATOM	1364	C	ALA	1176	39.956	32.717	14.027	1.00	2.00	heav	0
ATOM	1365	O	ALA	1176	40.623	33.725	14.300	1.00	28.97	heav	0
ATOM	1366	N	VAL	1177	40.281	31.446	14.308	1.00	29.29	heav	0
ATOM	1367	CA	VAL	1177	41.507	31.021	14.966	1.00	29.29	heav	0
ATOM	1368	CB	VAL	1177	41.093	30.571	16.423	1.00	16.19	heav	0
ATOM	1369	CG1	VAL	1177	40.195	29.345	16.420	1.00	16.19	heav	0
ATOM	1370	CG2	VAL	1177	42.330	30.212	17.221	1.00	16.19	heav	0
ATOM	1371	C	VAL	1177	42.120	29.923	14.095	1.00	29.29	heav	0
ATOM	1372	O	VAL	1177	41.393	29.181	13.412	1.00	16.19	heav	0
ATOM	1373	N	LEU	1178	43.454	29.847	14.061	1.00	25.21	heav	0
ATOM	1374	CA	LEU	1178	44.180	28.855	13.255	1.00	25.21	heav	0
ATOM	1375	CB	LEU	1178	45.478	29.435	12.791	1.00	38.27	heav	0
ATOM	1376	CG	LEU	1178	45.416	29.839	11.347	1.00	38.27	heav	0
ATOM	1377	CD1	LEU	1178	46.679	30.529	10.887	1.00	38.27	heav	0
ATOM	1378	CD2	LEU	1178	45.309	28.593	10.525	1.00	38.27	heav	0
ATOM	1379	C	LEU	1178	44.501	27.479	13.827	1.00	25.21	heav	0
ATOM	1380	O	LEU	1178	44.862	27.344	14.986	1.00	38.27	heav	0
ATOM	1381	N	GLN	1179	44.417	26.459	12.976	1.00	51.54	heav	0
ATOM	1382	CA	GLN	1179	44.583	25.042	13.297	1.00	51.54	heav	0
ATOM	1383	CB	GLN	1179	43.241	24.291	13.136	1.00	78.52	heav	0
ATOM	1384	CG	GLN	1179	42.225	24.344	14.262	1.00	78.52	heav	0
ATOM	1385	CD	GLN	1179	42.581	23.417	15.421	1.00	78.52	heav	0
ATOM	1386	OE1	GLN	1179	43.727	23.340	15.866	1.00	78.52	heav	0
ATOM	1387	NE2	GLN	1179	41.630	22.663	15.972	1.00	78.52	heav	0
ATOM	1388	C	GLN	1179	45.560	24.530	12.262	1.00	51.54	heav	0
ATOM	1389	O	GLN	1179	45.196	23.745	11.396	1.00	78.52	heav	0
ATOM	1390	N	SER	1180	46.791	25.027	12.284	1.00	54.18	heav	0
ATOM	1391	CA	SER	1180	47.801	24.717	11.276	1.00	54.18	heav	0
ATOM	1392	CB	SER	1180	48.382	23.349	11.620	1.00	74.40	heav	0
ATOM	1393	OG	SER	1180	49.248	23.628	12.727	1.00	74.40	heav	0
ATOM	1394	C	SER	1180	47.298	24.802	9.825	1.00	54.18	heav	0
ATOM	1395	O	SER	1180	46.767	23.926	9.147	1.00	74.40	heav	0
ATOM	1396	N	ASP	1181	47.411	26.083	9.476	1.00	80.38	heav	0
ATOM	1397	CA	ASP	1181	46.969	26.670	8.224	1.00	80.38	heav	0
ATOM	1398	CB	ASP	1181	47.961	26.289	7.095	1.00	77.24	heav	0
ATOM	1399	CG	ASP	1181	49.194	27.228	7.105	1.00	77.24	heav	0
ATOM	1400	OD1	ASP	1181	50.282	26.756	7.456	1.00	77.24	heav	0
ATOM	1401	OD2	ASP	1181	49.080	28.425	6.777	1.00	77.24	heav	0
ATOM	1402	C	ASP	1181	45.540	26.395	7.808	1.00	80.38	heav	0
ATOM	1403	O	ASP	1181	45.177	26.476	6.642	1.00	77.24	heav	0
ATOM	1404	N	LEU	1182	44.709	26.149	8.819	1.00	38.33	heav	0
ATOM	1405	CA	LEU	1182	43.282	26.178	8.602	1.00	38.33	heav	0
ATOM	1406	CB	LEU	1182	42.802	24.780	8.401	1.00	45.53	heav	0
ATOM	1407	CG	LEU	1182	42.863	24.397	6.941	1.00	45.53	heav	0
ATOM	1408	CD1	LEU	1182	42.277	23.028	6.839	1.00	45.53	heav	0
ATOM	1409	CD2	LEU	1182	42.087	25.356	6.042	1.00	45.53	heav	0
ATOM	1410	C	LEU	1182	42.420	26.875	9.669	1.00	38.33	heav	0
ATOM	1411	O	LEU	1182	42.677	26.792	10.878	1.00	45.53	heav	0
ATOM	1412	N	TYR	1183	41.394	27.618	9.247	1.00	2.00	heav	0
ATOM	1413	CA	TYR	1183	40.668	28.436	10.182	1.00	2.00	heav	0
ATOM	1414	CB	TYR	1183	40.240	29.673	9.467	1.00	23.74	heav	0
ATOM	1415	CG	TYR	1183	41.398	30.613	9.221	1.00	23.74	heav	0
ATOM	1416	CD1	TYR	1183	41.822	31.398	10.257	1.00	23.74	heav	0
ATOM	1417	CE1	TYR	1183	42.840	32.309	10.075	1.00	23.74	heav	0
ATOM	1418	CD2	TYR	1183	42.009	30.721	7.991	1.00	23.74	heav	0

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ATOM	1419	CE2	TYR	1183	43.028	31.635	7.804	1.00	23.74	heav	0
ATOM	1420	CZ	TYR	1183	43.451	32.431	8.852	1.00	23.74	heav	0
ATOM	1421	OH	TYR	1183	44.479	33.375	8.699	1.00	23.74	heav	0
ATOM	1422	C	TYR	1183	39.465	27.793	10.805	1.00	2.00	heav	0
ATOM	1423	O	TYR	1183	38.830	27.066	10.048	1.00	23.74	heav	0
ATOM	1424	N	THR	1184	39.104	27.946	12.080	1.00	2.00	heav	0
ATOM	1425	CA	THR	1184	37.772	27.555	12.547	1.00	2.00	heav	0
ATOM	1426	CB	THR	1184	37.923	26.500	13.580	1.00	28.60	heav	0
ATOM	1427	OG1	THR	1184	38.473	25.425	12.850	1.00	28.60	heav	0
ATOM	1428	CG2	THR	1184	36.670	26.065	14.245	1.00	28.60	heav	0
ATOM	1429	C	THR	1184	37.066	28.774	13.127	1.00	2.00	heav	0
ATOM	1430	O	THR	1184	37.727	29.616	13.751	1.00	28.60	heav	0
ATOM	1431	N	LEU	1185	35.757	28.952	12.942	1.00	14.81	heav	0
ATOM	1432	CA	LEU	1185	35.054	30.120	13.440	1.00	14.81	heav	0
ATOM	1433	CB	LEU	1185	34.924	31.062	12.311	1.00	18.29	heav	0
ATOM	1434	CG	LEU	1185	34.168	32.345	12.458	1.00	18.29	heav	0
ATOM	1435	CD1	LEU	1185	34.848	33.439	11.673	1.00	18.29	heav	0
ATOM	1436	CD2	LEU	1185	32.771	32.179	11.872	1.00	18.29	heav	0
ATOM	1437	C	LEU	1185	33.726	29.638	13.920	1.00	14.81	heav	0
ATOM	1438	O	LEU	1185	33.321	28.553	13.519	1.00	18.29	heav	0
ATOM	1439	N	SER	1186	33.054	30.439	14.724	1.00	2.00	heav	0
ATOM	1440	CA	SER	1186	31.780	30.049	15.281	1.00	2.00	heav	0
ATOM	1441	CB	SER	1186	31.982	29.414	16.638	1.00	22.72	heav	0
ATOM	1442	OG	SER	1186	33.358	29.349	17.000	1.00	22.72	heav	0
ATOM	1443	C	SER	1186	30.909	31.300	15.436	1.00	2.00	heav	0
ATOM	1444	O	SER	1186	31.459	32.405	15.570	1.00	22.72	heav	0
ATOM	1445	N	SER	1187	29.584	31.183	15.463	1.00	2.00	heav	0
ATOM	1446	CA	SER	1187	28.722	32.311	15.658	1.00	2.00	heav	0
ATOM	1447	CB	SER	1187	28.227	32.790	14.366	1.00	15.89	heav	0
ATOM	1448	OG	SER	1187	27.062	33.594	14.499	1.00	15.89	heav	0
ATOM	1449	C	SER	1187	27.576	31.803	16.464	1.00	2.00	heav	0
ATOM	1450	O	SER	1187	27.285	30.620	16.300	1.00	15.89	heav	0
ATOM	1451	N	SER	1188	26.943	32.645	17.271	1.00	11.76	heav	0
ATOM	1452	CA	SER	1188	25.815	32.265	18.073	1.00	11.76	heav	0
ATOM	1453	CB	SER	1188	26.175	32.313	19.544	1.00	24.89	heav	0
ATOM	1454	OG	SER	1188	25.811	33.526	20.249	1.00	24.89	heav	0
ATOM	1455	C	SER	1188	24.672	33.246	17.838	1.00	11.76	heav	0
ATOM	1456	O	SER	1188	24.896	34.432	17.595	1.00	24.89	heav	0
ATOM	1457	N	VAL	1189	23.425	32.813	17.973	1.00	28.93	heav	0
ATOM	1458	CA	VAL	1189	22.297	33.737	18.073	1.00	28.93	heav	0
ATOM	1459	CB	VAL	1189	21.279	33.700	17.019	1.00	19.59	heav	0
ATOM	1460	CG1	VAL	1189	20.411	34.916	17.052	1.00	19.59	heav	0
ATOM	1461	CG2	VAL	1189	21.957	33.652	15.767	1.00	19.59	heav	0
ATOM	1462	C	VAL	1189	21.442	33.274	19.235	1.00	28.93	heav	0
ATOM	1463	O	VAL	1189	21.122	32.067	19.242	1.00	19.59	heav	0
ATOM	1464	N	THR	1190	21.090	34.185	20.156	1.00	21.62	heav	0
ATOM	1465	CA	THR	1190	20.109	33.917	21.188	1.00	21.62	heav	0
ATOM	1466	CB	THR	1190	20.604	34.554	22.470	1.00	15.87	heav	0
ATOM	1467	OG1	THR	1190	21.163	33.473	23.197	1.00	15.87	heav	0
ATOM	1468	CG2	THR	1190	19.549	35.239	23.298	1.00	15.87	heav	0
ATOM	1469	C	THR	1190	18.777	34.498	20.706	1.00	21.62	heav	0
ATOM	1470	O	THR	1190	18.681	35.634	20.211	1.00	15.87	heav	0
ATOM	1471	N	VAL	1191	17.731	33.708	20.905	1.00	26.19	heav	0
ATOM	1472	CA	VAL	1191	16.407	33.988	20.367	1.00	26.19	heav	0
ATOM	1473	CB	VAL	1191	16.474	33.160	19.039	1.00	20.96	heav	0
ATOM	1474	CG1	VAL	1191	15.762	31.823	19.079	1.00	20.96	heav	0
ATOM	1475	CG2	VAL	1191	15.924	34.033	17.981	1.00	20.96	heav	0
ATOM	1476	C	VAL	1191	15.397	33.588	21.452	1.00	26.19	heav	0
ATOM	1477	O	VAL	1191	15.742	32.671	22.206	1.00	20.96	heav	0
ATOM	1478	N	PRO	1192	14.224	34.211	21.701	1.00	19.03	heav	0
ATOM	1479	CD	PRO	1192	13.886	35.537	21.229	1.00	14.23	heav	0
ATOM	1480	CA	PRO	1192	13.205	33.742	22.666	1.00	19.03	heav	0
ATOM	1481	CB	PRO	1192	12.014	34.636	22.536	1.00	14.23	heav	0
ATOM	1482	CG	PRO	1192	12.365	35.491	21.341	1.00	14.23	heav	0
ATOM	1483	C	PRO	1192	12.842	32.337	22.296	1.00	19.03	heav	0
ATOM	1484	O	PRO	1192	12.801	32.075	21.107	1.00	14.23	heav	0
ATOM	1485	N	SER	1193	12.486	31.420	23.167	1.00	21.89	heav	0

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ATOM	1486	CA	SER	1193	12.266	30.015	22.799	1.00	21.89	heav	0
ATOM	1487	CB	SER	1193	12.637	29.236	24.037	1.00	64.55	heav	0
ATOM	1488	OG	SER	1193	12.033	29.914	25.138	1.00	64.55	heav	0
ATOM	1489	C	SER	1193	10.892	29.596	22.272	1.00	21.89	heav	0
ATOM	1490	O	SER	1193	10.221	28.686	22.776	1.00	64.55	heav	0
ATOM	1491	N	SER	1194	10.504	30.290	21.229	1.00	43.64	heav	0
ATOM	1492	CA	SER	1194	.168	30.177	20.688	1.00	43.64	heav	0
ATOM	1493	CB	SER	1194	.202	31.027	21.538	1.00	58.27	heav	0
ATOM	1494	OG	SER	1194	.725	32.273	22.036	1.00	58.27	heav	0
ATOM	1495	C	SER	1194	.228	30.694	19.281	1.00	43.64	heav	0
ATOM	1496	O	SER	1194	.278	30.507	18.526	1.00	58.27	heav	0
ATOM	1497	N	PRO	1195	10.233	31.545	18.970	1.00	2.00	heav	0
ATOM	1498	CD	PRO	1195	10.346	32.949	19.400	1.00	58.47	heav	0
ATOM	1499	CA	PRO	1195	10.744	31.549	17.642	1.00	2.00	heav	0
ATOM	1500	CB	PRO	1195	11.617	32.808	17.422	1.00	58.47	heav	0
ATOM	1501	CG	PRO	1195	11.700	33.375	18.788	1.00	58.47	heav	0
ATOM	1502	C	PRO	1195	11.458	30.264	17.379	1.00	2.00	heav	0
ATOM	1503	O	PRO	1195	10.871	29.637	16.522	1.00	58.47	heav	0
ATOM	1504	N	ARG	1196	12.544	29.724	17.887	1.00	47.85	heav	0
ATOM	1505	CA	ARG	1196	12.892	28.367	17.399	1.00	47.85	heav	0
ATOM	1506	CB	ARG	1196	14.375	28.169	17.390	1.00	21.19	heav	0
ATOM	1507	CG	ARG	1196	14.941	27.533	16.120	1.00	21.19	heav	0
ATOM	1508	CD	ARG	1196	15.250	26.089	16.087	1.00	21.19	heav	0
ATOM	1509	NE	ARG	1196	15.312	25.631	17.459	1.00	21.19	heav	0
ATOM	1510	CZ	ARG	1196	16.019	24.565	17.820	1.00	21.19	heav	0
ATOM	1511	NH1	ARG	1196	16.724	23.846	16.942	1.00	21.19	heav	0
ATOM	1512	NH2	ARG	1196	16.021	24.160	19.080	1.00	21.19	heav	0
ATOM	1513	C	ARG	1196	12.240	27.444	18.418	1.00	47.85	heav	0
ATOM	1514	O	ARG	1196	11.891	27.970	19.491	1.00	21.19	heav	0
ATOM	1515	N	CPR	1197	11.794	26.198	18.151	1.00	31.70	heav	0
ATOM	1516	CD	CPR	1197	11.986	25.114	19.106	1.00	15.22	heav	0
ATOM	1517	CA	CPR	1197	11.790	25.559	16.833	1.00	31.70	heav	0
ATOM	1518	CB	CPR	1197	11.639	24.065	17.059	1.00	15.22	heav	0
ATOM	1519	CG	CPR	1197	12.480	23.918	18.268	1.00	15.22	heav	0
ATOM	1520	C	CPR	1197	10.685	26.075	15.921	1.00	31.70	heav	0
ATOM	1521	O	CPR	1197	10.814	25.945	14.722	1.00	15.22	heav	0
ATOM	1522	N	SER	1198	.597	26.657	16.404	1.00	2.00	heav	0
ATOM	1523	CA	SER	1198	.452	27.096	15.583	1.00	2.00	heav	0
ATOM	1524	CB	SER	1198	.549	27.939	16.482	1.00	55.63	heav	0
ATOM	1525	OG	SER	1198	.006	27.858	17.832	1.00	55.63	heav	0
ATOM	1526	C	SER	1198	.706	27.860	14.264	1.00	2.00	heav	0
ATOM	1527	O	SER	1198	.011	27.671	13.263	1.00	55.63	heav	0
ATOM	1528	N	GLU	1199	.624	28.819	14.330	1.00	15.01	heav	0
ATOM	1529	CA	GLU	1199	10.064	29.591	13.220	1.00	15.01	heav	0
ATOM	1530	CB	GLU	1199	10.075	31.078	13.616	1.00	41.67	heav	0
ATOM	1531	CG	GLU	1199	.707	31.760	13.954	1.00	41.67	heav	0
ATOM	1532	CD	GLU	1199	.649	33.324	14.089	1.00	41.67	heav	0
ATOM	1533	OE1	GLU	1199	.632	34.038	13.789	1.00	41.67	heav	0
ATOM	1534	OE2	GLU	1199	.597	33.852	14.500	1.00	41.67	heav	0
ATOM	1535	C	GLU	1199	11.468	29.032	12.916	1.00	15.01	heav	0
ATOM	1536	O	GLU	1199	12.189	28.395	13.692	1.00	41.67	heav	0
ATOM	1537	N	THR	1200	11.849	29.331	11.697	1.00	2.00	heav	0
ATOM	1538	CA	THR	1200	13.084	28.951	11.079	1.00	2.00	heav	0
ATOM	1539	CB	THR	1200	12.917	29.036	9.566	1.00	18.56	heav	0
ATOM	1540	OG1	THR	1200	11.581	28.749	9.167	1.00	18.56	heav	0
ATOM	1541	CG2	THR	1200	13.746	27.967	8.923	1.00	18.56	heav	0
ATOM	1542	C	THR	1200	14.208	29.870	11.491	1.00	2.00	heav	0
ATOM	1543	O	THR	1200	14.069	31.100	11.470	1.00	18.56	heav	0
ATOM	1544	N	VAL	1201	15.312	29.262	11.890	1.00	13.39	heav	0
ATOM	1545	CA	VAL	1201	16.534	30.006	12.112	1.00	13.39	heav	0
ATOM	1546	CB	VAL	1201	16.919	29.891	13.571	1.00	11.13	heav	0
ATOM	1547	CG1	VAL	1201	18.247	30.550	13.782	1.00	11.13	heav	0
ATOM	1548	CG2	VAL	1201	15.951	30.672	14.447	1.00	11.13	heav	0
ATOM	1549	C	VAL	1201	17.596	29.364	11.203	1.00	13.39	heav	0
ATOM	1550	O	VAL	1201	17.744	28.112	11.227	1.00	11.13	heav	0
ATOM	1551	N	THR	1202	18.337	30.181	10.427	1.00	2.00	heav	0
ATOM	1552	CA	THR	1202	19.352	29.725	9.489	1.00	2.00	heav	0

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ATOM	1553	CB	THR	1202	18.813	29.762	8.070	1.00	17.50	heav	0
ATOM	1554	OG1	THR	1202	18.187	28.523	7.997	1.00	17.50	heav	0
ATOM	1555	CG2	THR	1202	19.777	29.791	6.918	1.00	17.50	heav	0
ATOM	1556	C	THR	1202	20.598	30.570	9.541	1.00	2.00	heav	0
ATOM	1557	O	THR	1202	20.520	31.807	9.645	1.00	17.50	heav	0
ATOM	1558	N	CYS	1203	21.767	29.946	9.519	1.00	2.00	heav	0
ATOM	1559	CA	CYS	1203	22.921	30.782	9.405	1.00	2.00	heav	0
ATOM	1560	C	CYS	1203	23.327	30.712	7.947	1.00	2.00	heav	0
ATOM	1561	O	CYS	1203	23.017	29.769	7.211	1.00	20.48	heav	0
ATOM	1562	CB	CYS	1203	24.025	30.321	10.326	1.00	20.48	heav	0
ATOM	1563	SG	CYS	1203	24.951	28.887	9.829	1.00	20.48	heav	0
ATOM	1564	N	ASN	1204	23.954	31.795	7.498	1.00	39.97	heav	0
ATOM	1565	CA	ASN	1204	24.274	31.963	6.100	1.00	39.97	heav	0
ATOM	1566	CB	ASN	1204	23.572	33.140	5.504	1.00	19.51	heav	0
ATOM	1567	CG	ASN	1204	22.170	33.335	6.030	1.00	19.51	heav	0
ATOM	1568	OD1	ASN	1204	21.897	33.589	7.205	1.00	19.51	heav	0
ATOM	1569	ND2	ASN	1204	21.183	33.268	5.173	1.00	19.51	heav	0
ATOM	1570	C	ASN	1204	25.726	32.281	6.145	1.00	39.97	heav	0
ATOM	1571	O	ASN	1204	26.063	33.315	6.703	1.00	19.51	heav	0
ATOM	1572	N	VAL	1205	26.596	31.448	5.617	1.00	2.00	heav	0
ATOM	1573	CA	VAL	1205	28.026	31.713	5.657	1.00	2.00	heav	0
ATOM	1574	CB	VAL	1205	28.804	30.612	6.477	1.00	2.00	heav	0
ATOM	1575	CG1	VAL	1205	27.857	29.495	6.845	1.00	2.00	heav	0
ATOM	1576	CG2	VAL	1205	29.994	30.060	5.713	1.00	2.00	heav	0
ATOM	1577	C	VAL	1205	28.523	31.764	4.233	1.00	2.00	heav	0
ATOM	1578	O	VAL	1205	28.113	30.936	3.418	1.00	2.00	heav	0
ATOM	1579	N	ALA	1206	29.467	32.653	3.952	1.00	26.54	heav	0
ATOM	1580	CA	ALA	1206	29.955	32.878	2.601	1.00	26.54	heav	0
ATOM	1581	CB	ALA	1206	29.453	34.163	2.045	1.00	40.33	heav	0
ATOM	1582	C	ALA	1206	31.440	33.015	2.703	1.00	26.54	heav	0
ATOM	1583	O	ALA	1206	31.965	33.738	3.560	1.00	40.33	heav	0
ATOM	1584	N	HIS	1207	32.135	32.310	1.849	1.00	2.00	heav	0
ATOM	1585	CA	HIS	1207	33.546	32.360	1.986	1.00	2.00	heav	0
ATOM	1586	CB	HIS	1207	34.036	31.029	2.478	1.00	25.94	heav	0
ATOM	1587	CG	HIS	1207	35.547	30.920	2.426	1.00	25.94	heav	0
ATOM	1588	CD2	HIS	1207	36.434	31.624	3.190	1.00	25.94	heav	0
ATOM	1589	ND1	HIS	1207	36.237	30.116	1.645	1.00	25.94	heav	0
ATOM	1590	CE1	HIS	1207	37.506	30.304	1.916	1.00	25.94	heav	0
ATOM	1591	NE2	HIS	1207	37.617	31.208	2.842	1.00	25.94	heav	0
ATOM	1592	C	HIS	1207	34.068	32.689	0.622	1.00	2.00	heav	0
ATOM	1593	O	HIS	1207	34.562	31.813	-0.112	1.00	25.94	heav	0
ATOM	1594	N	PRO	1208	34.042	33.968	0.267	1.00	2.00	heav	0
ATOM	1595	CD	PRO	1208	33.900	35.074	1.176	1.00	21.54	heav	0
ATOM	1596	CA	PRO	1208	34.208	34.441	-1.082	1.00	2.00	heav	0
ATOM	1597	CB	PRO	1208	34.135	35.891	-0.942	1.00	21.54	heav	0
ATOM	1598	CG	PRO	1208	33.264	36.046	0.252	1.00	21.54	heav	0
ATOM	1599	C	PRO	1208	35.495	33.963	-1.725	1.00	2.00	heav	0
ATOM	1600	O	PRO	1208	35.454	33.640	-2.912	1.00	21.54	heav	0
ATOM	1601	N	ALA	1209	36.624	33.739	-1.038	1.00	26.25	heav	0
ATOM	1602	CA	ALA	1209	37.827	33.285	-1.743	1.00	26.25	heav	0
ATOM	1603	CB	ALA	1209	38.993	33.129	-0.770	1.00	44.49	heav	0
ATOM	1604	C	ALA	1209	37.637	31.952	-2.475	1.00	26.25	heav	0
ATOM	1605	O	ALA	1209	38.519	31.522	-3.211	1.00	44.49	heav	0
ATOM	1606	N	SER	1210	36.503	31.266	-2.259	1.00	2.00	heav	0
ATOM	1607	CA	SER	1210	36.224	30.001	-2.913	1.00	2.00	heav	0
ATOM	1608	CB	SER	1210	36.461	28.870	-1.968	1.00	19.78	heav	0
ATOM	1609	OG	SER	1210	35.620	29.029	-0.816	1.00	19.78	heav	0
ATOM	1610	C	SER	1210	34.776	29.984	-3.347	1.00	2.00	heav	0
ATOM	1611	O	SER	1210	34.266	28.959	-3.773	1.00	19.78	heav	0
ATOM	1612	N	SER	1211	34.081	31.115	-3.243	1.00	35.96	heav	0
ATOM	1613	CA	SER	1211	32.720	31.254	-3.736	1.00	35.96	heav	0
ATOM	1614	CB	SER	1211	32.787	31.261	-5.247	1.00	54.85	heav	0
ATOM	1615	OG	SER	1211	33.972	31.953	-5.643	1.00	54.85	heav	0
ATOM	1616	C	SER	1211	31.800	30.159	-3.242	1.00	35.96	heav	0
ATOM	1617	O	SER	1211	31.005	29.511	-3.923	1.00	54.85	heav	0
ATOM	1618	N	THR	1212	32.030	29.891	-1.994	1.00	2.00	heav	0
ATOM	1619	CA	THR	1212	31.200	28.965	-1.321	1.00	2.00	heav	0

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ATOM	1620	CB	THR	1212	32.110	28.259	-0.394	1.00	25.75	heav	0
ATOM	1621	OG1	THR	1212	33.189	27.835	-1.205	1.00	25.75	heav	0
ATOM	1622	CG2	THR	1212	31.462	27.118	0.345	1.00	25.75	heav	0
ATOM	1623	C	THR	1212	30.259	29.975	-0.651	1.00	2.00	heav	0
ATOM	1624	O	THR	1212	30.677	31.080	-0.211	1.00	25.75	heav	0
ATOM	1625	N	LYS	1213	28.974	29.593	-0.648	1.00	28.56	heav	0
ATOM	1626	CA	LYS	1213	27.902	30.270	0.066	1.00	28.56	heav	0
ATOM	1627	CB	LYS	1213	27.114	31.223	-0.858	1.00	77.08	heav	0
ATOM	1628	CG	LYS	1213	26.572	32.530	-0.219	1.00	77.08	heav	0
ATOM	1629	CD	LYS	1213	25.574	32.371	0.961	1.00	77.08	heav	0
ATOM	1630	CE	LYS	1213	25.333	33.653	1.785	1.00	77.08	heav	0
ATOM	1631	NZ	LYS	1213	24.737	34.732	1.012	1.00	77.08	heav	0
ATOM	1632	C	LYS	1213	27.013	29.092	0.493	1.00	28.56	heav	0
ATOM	1633	O	LYS	1213	26.622	28.298	-0.366	1.00	77.08	heav	0
ATOM	1634	N	VAL	1214	26.748	28.875	1.804	1.00	18.83	heav	0
ATOM	1635	CA	VAL	1214	25.877	27.794	2.305	1.00	18.83	heav	0
ATOM	1636	CB	VAL	1214	26.699	26.502	2.817	1.00	19.34	heav	0
ATOM	1637	CG1	VAL	1214	28.191	26.739	2.727	1.00	19.34	heav	0
ATOM	1638	CG2	VAL	1214	26.387	26.150	4.243	1.00	19.34	heav	0
ATOM	1639	C	VAL	1214	24.994	28.328	3.414	1.00	18.83	heav	0
ATOM	1640	O	VAL	1214	25.460	29.121	4.239	1.00	19.34	heav	0
ATOM	1641	N	ASP	1215	23.707	27.940	3.307	1.00	2.00	heav	0
ATOM	1642	CA	ASP	1215	22.687	28.243	4.298	1.00	2.00	heav	0
ATOM	1643	CB	ASP	1215	21.410	28.642	3.633	1.00	46.71	heav	0
ATOM	1644	CG	ASP	1215	21.540	29.888	2.771	1.00	46.71	heav	0
ATOM	1645	OD1	ASP	1215	20.740	30.010	1.853	1.00	46.71	heav	0
ATOM	1646	OD2	ASP	1215	22.421	30.725	2.975	1.00	46.71	heav	0
ATOM	1647	C	ASP	1215	22.476	26.976	5.103	1.00	2.00	heav	0
ATOM	1648	O	ASP	1215	22.618	25.882	4.553	1.00	46.71	heav	0
ATOM	1649	N	LYS	1216	22.193	27.058	6.406	1.00	2.00	heav	0
ATOM	1650	CA	LYS	1216	22.056	25.901	7.276	1.00	2.00	heav	0
ATOM	1651	CB	LYS	1216	23.321	25.623	8.058	1.00	35.85	heav	0
ATOM	1652	CG	LYS	1216	23.667	24.156	8.051	1.00	35.85	heav	0
ATOM	1653	CD	LYS	1216	23.825	23.700	6.610	1.00	35.85	heav	0
ATOM	1654	CE	LYS	1216	24.088	22.214	6.522	1.00	35.85	heav	0
ATOM	1655	NZ	LYS	1216	25.475	21.935	6.860	1.00	35.85	heav	0
ATOM	1656	C	LYS	1216	20.978	26.289	8.233	1.00	2.00	heav	0
ATOM	1657	O	LYS	1216	20.948	27.388	8.775	1.00	35.85	heav	0
ATOM	1658	N	LYS	1217	19.990	25.440	8.319	1.00	2.00	heav	0
ATOM	1659	CA	LYS	1217	18.866	25.697	9.173	1.00	2.00	heav	0
ATOM	1660	CB	LYS	1217	17.659	25.224	8.445	1.00	18.82	heav	0
ATOM	1661	CG	LYS	1217	16.322	25.202	9.160	1.00	18.82	heav	0
ATOM	1662	CD	LYS	1217	15.506	24.429	8.151	1.00	18.82	heav	0
ATOM	1663	CE	LYS	1217	14.083	24.185	8.523	1.00	18.82	heav	0
ATOM	1664	NZ	LYS	1217	13.567	23.324	7.466	1.00	18.82	heav	0
ATOM	1665	C	LYS	1217	19.175	24.898	10.390	1.00	2.00	heav	0
ATOM	1666	O	LYS	1217	19.666	23.773	10.323	1.00	18.82	heav	0
ATOM	1667	N	ILE	1218	18.920	25.479	11.525	1.00	27.93	heav	0
ATOM	1668	CA	ILE	1218	19.233	24.787	12.739	1.00	27.93	heav	0
ATOM	1669	CB	ILE	1218	19.575	25.723	13.894	1.00	14.06	heav	0
ATOM	1670	CG2	ILE	1218	20.102	24.750	14.924	1.00	14.06	heav	0
ATOM	1671	CG1	ILE	1218	20.516	26.900	13.565	1.00	14.06	heav	0
ATOM	1672	CD1	ILE	1218	21.865	26.567	12.854	1.00	14.06	heav	0
ATOM	1673	C	ILE	1218	17.917	24.129	13.039	1.00	27.93	heav	0
ATOM	1674	O	ILE	1218	16.914	24.794	13.356	1.00	14.06	heav	0
ATOM	1675	N	VAL	1219	17.949	22.829	12.791	1.00	12.22	heav	0
ATOM	1676	CA	VAL	1219	16.820	21.997	13.174	1.00	12.22	heav	0
ATOM	1677	CB	VAL	1219	16.650	20.819	12.193	1.00	27.03	heav	0
ATOM	1678	CG1	VAL	1219	16.442	21.470	10.869	1.00	27.03	heav	0
ATOM	1679	CG2	VAL	1219	17.821	19.833	12.129	1.00	27.03	heav	0
ATOM	1680	C	VAL	1219	17.129	21.473	14.585	1.00	12.22	heav	0
ATOM	1681	O	VAL	1219	18.326	21.485	14.949	1.00	27.03	heav	0
ATOM	1682	N	PRO	1220	16.129	21.062	15.422	1.00	14.75	heav	0
ATOM	1683	CD	PRO	1220	14.719	21.200	15.137	1.00	21.35	heav	0
ATOM	1684	CA	PRO	1220	16.301	20.354	16.687	1.00	14.75	heav	0
ATOM	1685	CB	PRO	1220	14.975	20.191	17.300	1.00	21.35	heav	0
ATOM	1686	CG	PRO	1220	13.984	20.694	16.351	1.00	21.35	heav	0

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ATOM	1687	C	PRO	1220	16.955	19.004	16.590	1.00	14.75	heav	0
ATOM	1688	O	PRO	1220	17.111	18.529	15.457	1.00	21.35	heav	0
ATOM	1689	N	ARG	1221	17.360	18.544	17.772	1.00	64.58	heav	0
ATOM	1690	CA	ARG	1221	18.142	17.341	17.703	1.00	64.58	heav	0
ATOM	1691	CB	ARG	1221	18.722	17.421	19.016	1.00	127.60	heav	0
ATOM	1692	CG	ARG	1221	20.082	17.795	18.472	1.00	127.60	heav	0
ATOM	1693	CD	ARG	1221	21.338	17.730	19.242	1.00	127.60	heav	0
ATOM	1694	NE	ARG	1221	21.730	16.341	19.556	1.00	127.60	heav	0
ATOM	1695	CZ	ARG	1221	23.062	15.811	19.326	1.00	127.60	heav	0
ATOM	1696	NH1	ARG	1221	24.064	16.702	18.730	1.00	127.60	heav	0
ATOM	1697	NH2	ARG	1221	23.431	14.433	19.698	1.00	127.60	heav	0
ATOM	1698	C	ARG	1221	17.661	15.933	17.287	1.00	64.58	heav	0
ATOM	1699	OT1	ARG	1221	16.760	15.359	18.034	1.00	127.60	heav	0
ATOM	1700	OT2	ARG	1221	18.236	15.633	16.157	1.00	127.60	heav	0
ATOM	1	CB	HIS	2002	.689	72.928	-0.181	1.00	114.59	p142	0
ATOM	2	CG	HIS	2002	.882	73.412	-1.012	1.00	114.59	p142	0
ATOM	3	CD2	HIS	2002	.556	74.606	-0.826	1.00	114.59	p142	0
ATOM	4	ND1	HIS	2002	.489	72.759	-2.010	1.00	114.59	p142	0
ATOM	5	CE1	HIS	2002	.493	73.500	-2.429	1.00	114.59	p142	0
ATOM	6	NE2	HIS	2002	.523	74.603	-1.708	1.00	114.59	p142	0
ATOM	7	C	HIS	2002	.063	71.919	2.039	1.00	76.71	p142	0
ATOM	8	O	HIS	2002	.189	70.702	1.893	1.00	114.59	p142	0
ATOM	9	N	HIS	2002	.253	72.193	1.633	1.00	76.71	p142	0
ATOM	10	CA	HIS	2002	.999	72.886	1.329	1.00	76.71	p142	0
ATOM	11	N	ILE	2003	.334	72.534	2.957	1.00	55.97	p142	0
ATOM	12	CA	ILE	2003	.484	71.871	3.921	1.00	55.97	p142	0
ATOM	13	CB	ILE	2003	.015	72.147	5.349	1.00	32.05	p142	0
ATOM	14	CG2	ILE	2003	.458	71.692	5.478	1.00	32.05	p142	0
ATOM	15	CG1	ILE	2003	.949	73.630	5.634	1.00	32.05	p142	0
ATOM	16	CD1	ILE	2003	.606	74.098	6.924	1.00	32.05	p142	0
ATOM	17	C	ILE	2003	.117	72.486	3.744	1.00	55.97	p142	0
ATOM	18	O	ILE	2003	.937	73.558	3.151	1.00	32.05	p142	0
ATOM	19	N	GLY	2004	.196	71.810	4.353	1.00	27.02	p142	0
ATOM	20	CA	GLY	2004	.860	72.315	4.412	1.00	27.02	p142	0
ATOM	21	C	GLY	2004	.945	71.642	3.412	1.00	27.02	p142	0
ATOM	22	O	GLY	2004	.257	70.628	2.767	1.00	39.25	p142	0
ATOM	23	N	PRO	2005	.728	72.189	3.334	1.00	19.33	p142	0
ATOM	24	CD	PRO	2005	.108	72.994	4.381	1.00	13.80	p142	0
ATOM	25	CA	PRO	2005	.830	71.961	2.225	1.00	19.33	p142	0
ATOM	26	CB	PRO	2005	.540	72.520	2.716	1.00	13.80	p142	0
ATOM	27	CG	PRO	2005	.971	73.622	3.645	1.00	13.80	p142	0
ATOM	28	C	PRO	2005	.367	72.594	0.959	1.00	19.33	p142	0
ATOM	29	O	PRO	2005	.209	73.505	0.933	1.00	13.80	p142	0
ATOM	30	N	GLY	2006	.929	71.861	-0.062	1.00	10.42	p142	0
ATOM	31	CA	GLY	2006	.357	72.072	-1.416	1.00	10.42	p142	0
ATOM	32	C	GLY	2006	.766	71.542	-1.681	1.00	10.42	p142	0
ATOM	33	O	GLY	2006	.170	71.404	-2.834	1.00	35.92	p142	0
ATOM	34	N	ARG	2007	.441	71.050	-0.647	1.00	2.00	p142	0
ATOM	35	CA	ARG	2007	.789	70.473	-0.608	1.00	2.00	p142	0
ATOM	36	CB	ARG	2007	.792	69.494	0.542	1.00	34.17	p142	0
ATOM	37	CG	ARG	2007	.074	69.215	1.249	1.00	34.17	p142	0
ATOM	38	CD	ARG	2007	.982	68.072	2.222	1.00	34.17	p142	0
ATOM	39	NE	ARG	2007	.761	68.160	3.002	1.00	34.17	p142	0
ATOM	40	CZ	ARG	2007	.207	67.073	3.496	1.00	34.17	p142	0
ATOM	41	NH1	ARG	2007	.735	65.856	3.318	1.00	34.17	p142	0
ATOM	42	NH2	ARG	2007	.045	67.145	4.145	1.00	34.17	p142	0
ATOM	43	C	ARG	2007	.117	69.750	-1.918	1.00	2.00	p142	0
ATOM	44	O	ARG	2007	.005	70.108	-2.675	1.00	34.17	p142	0
ATOM	45	N	ALA	2008	.229	68.792	-2.231	1.00	2.00	p142	0
ATOM	46	CA	ALA	2008	.407	67.844	-3.296	1.00	2.00	p142	0
ATOM	47	CB	ALA	2008	.299	66.776	-3.247	1.00	63.20	p142	0
ATOM	48	C	ALA	2008	.467	68.341	-4.695	1.00	2.00	p142	0
ATOM	49	O	ALA	2008	.302	67.929	-5.503	1.00	63.20	p142	0
ATOM	50	N	PHE	2009	.523	69.210	-4.961	1.00	47.20	p142	0
ATOM	51	CA	PHE	2009	.407	69.675	-6.313	1.00	47.20	p142	0
ATOM	52	CB	PHE	2009	.987	69.479	-6.841	1.00	32.49	p142	0
ATOM	53	CG	PHE	2009	.870	69.735	-5.852	1.00	32.49	p142	0

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ATOM	54	CD1	PHE	2009	.031	68.687	-5.554	1.00	32.49	p142	0
ATOM	55	CD2	PHE	2009	.734	70.957	-5.227	1.00	32.49	p142	0
ATOM	56	CE1	PHE	2009	.047	68.867	-4.617	1.00	32.49	p142	0
ATOM	57	CE2	PHE	2009	.751	71.127	-4.291	1.00	32.49	p142	0
ATOM	58	CZ	PHE	2009	.908	70.080	-3.980	1.00	32.49	p142	0
ATOM	59	C	PHE	2009	.776	71.119	-6.341	1.00	47.20	p142	0
ATOM	60	O	PHE	2009	.147	71.897	-7.049	1.00	32.49	p142	0
ATOM	61	N	TYR	2010	.816	71.453	-5.580	1.00	45.96	p142	0
ATOM	62	CA	TYR	2010	.341	72.807	-5.519	1.00	45.96	p142	0
ATOM	63	CB	TYR	2010	.683	72.856	-4.811	1.00	65.43	p142	0
ATOM	64	CG	TYR	2010	.210	74.225	-4.434	1.00	65.43	p142	0
ATOM	65	CD1	TYR	2010	.398	75.055	-3.711	1.00	65.43	p142	0
ATOM	66	CE1	TYR	2010	.881	76.265	-3.281	1.00	65.43	p142	0
ATOM	67	CD2	TYR	2010	.502	74.592	-4.752	1.00	65.43	p142	0
ATOM	68	CE2	TYR	2010	.991	75.808	-4.324	1.00	65.43	p142	0
ATOM	69	CZ	TYR	2010	.178	76.640	-3.580	1.00	65.43	p142	0
ATOM	70	OH	TYR	2010	.665	77.833	-3.051	1.00	65.43	p142	0
ATOM	71	C	TYR	2010	.596	73.310	-6.909	1.00	45.96	p142	0
ATOM	72	O	TYR	2010	.321	74.539	-7.041	1.00	65.43	p142	0
ATOM	73	N	THR	2011	.223	72.394	-7.746	1.00	99.41	p142	0
ATOM	74	CA	THR	2011	.571	72.967	-9.112	1.00	99.41	p142	0
ATOM	75	CB	THR	2011	.772	71.982	-9.555	1.00	98.25	p142	0
ATOM	76	OG1	THR	2011	.747	72.188	-8.498	1.00	98.25	p142	0
ATOM	77	CG2	THR	2011	.503	72.293	-10.826	1.00	98.25	p142	0
ATOM	78	C	THR	2011	.451	73.241	-10.189	1.00	99.41	p142	0
ATOM	79	OT1	THR	2011	.672	72.233	-10.603	1.00	98.25	p142	0
ATOM	80	OT2	THR	2011	.525	74.555	-10.438	1.00	98.25	p142	0

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CLAIMS

1. A method for identifying molecules capable of binding to or eliciting anti-HIV antibodies, said method comprising:

- 5 (1) selecting an antibody-contacting pharmacophore within peptide antigen RP142;
- (2) comparing said pharmacophore to three-dimensional molecular structures in a structural database using a computer program;
- 10 (3) identifying candidate molecules present within said database predicted to include said pharmacophore; and
- (4) screening said candidate molecules to identify one or more said molecules capable of binding to or
- 15 eliciting anti-HIV antibodies.

2. The molecules identified by the method of claim 1.

3. A method for identifying molecules capable of binding to or eliciting anti-HIV antibodies, said method

20 comprising:

- (1) selecting an anti-HIV antibody-contacting pharmacophore within cyclic peptide AS;
- (2) comparing said pharmacophore to three-dimensional molecular structures in a structural database
- 25 using a computer program;
- (3) identifying candidate structures present within said database predicted to include said pharmacophore; and
- (4) screening said candidate molecules to
- 30 identify one or more said molecules capable of binding to or eliciting anti-HIV antibodies.

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4. The molecules identified by the method of claim 3.

5. A method for identifying molecules capable of binding to or eliciting anti-HIV antibodies, said method comprising:

(1) selecting a region of three to seven contiguous amino acids within the central domain of peptide antigen RP142;

(2) comparing the atomic coordinates of the backbone of said selected region of RP142 with the atomic coordinates of the backbones of three to seven amino acid polypeptide sequences in a protein structure database using a computer program;

(3) identifying a candidate three to seven amino acid polypeptide sequence present in said database wherein the root mean square difference between said backbone atomic coordinates of said candidate peptide and said backbone atomic coordinates of said selected region of RP142 is less than about 0.5 Å;

(4) in a model, sequentially replacing each amino acid side chain of said candidate peptide with an alternative amino acid side chain to create a set of substituted selected peptides; and

(5) identifying preferred substituted selected peptides present in said set of substituted peptides wherein the root mean square difference between all said atomic coordinates of each said preferred substituted selected peptide and all atomic coordinates of said central domain of RP142 is less than about 0.3 Å.

6. The method of claim 5 wherein step (5) comprises the steps of:

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(a) in a model, sequentially replacing each amino acid side chain of said candidate peptide with an alternative amino acid side chain; and

(b) rotating each replaced amino acid side chain of each said candidate peptide on its alpha carbon bond to identify a minimum energy position.

7. The molecules identified by the method of claim 5.

8. A method for identifying molecules capable of binding to or eliciting anti-HIV antibodies, said method comprising:

(1) selecting a region of three to seven contiguous amino acids within cyclic peptide AS;

(2) comparing the atomic coordinates of the backbone of said selected region of cyclic peptide AS with the atomic coordinates of the backbones of three to seven amino acid polypeptide sequences in a protein structure databases using a computer program;

(3) identifying a candidate three to seven amino acid polypeptide sequence present in said database wherein the root mean square difference between said backbone atomic coordinates of said candidate peptide and said backbone atomic coordinates of said selected region of cyclic peptide AS is less than about 0.5Å;

(4) in a model, sequentially replacing each amino acid side chain of said candidate peptide with an alternative amino acid side chain to create a set of substituted selected peptides; and

(5) identifying preferred substituted selected peptides present in said set of substituted peptides wherein the root mean square difference between all said atomic coordinates of each said preferred substituted

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selected peptide and all atomic coordinates of said cyclic peptide AS is less than about 0.3Å.

9. The method of claim 8 wherein step (5) comprises the steps of:

5 (a) in a model, sequentially replacing each amino acid side chain of said candidate peptide with an alternative amino acid side; and

(b) rotating each replaced amino acid side chain of each said candidate peptide on its alpha carbon bond
10 to identify a minimum energy position.

10. The molecules identified by the method of claim 8.

11. A recombinant broadly neutralizing anti-HIV antibody, comprising a recombinant kappa light chain
15 framework subgroup IV and human heavy chain framework subgroup II, wherein at least five CDR amino acids selected from the group consisting of Kabat light chain amino acids 27D, 92, 93, 94, 96 and Kabat heavy chain amino acids 33, 50, 52, 53, 56, 57, 95 and 100I are
20 identical to the corresponding 58.2 contact amino acids.

12. A recombinant broadly neutralizing anti-HIV antibody, comprising a recombinant kappa light chain framework subgroup IV and human heavy chain framework subgroup II, wherein at least five CDR amino acids
25 selected from the group consisting of Kabat light chain amino acids 27D, 28, 91, 92, 93, 94, and Kabat heavy chain amino acids 33, 35, 50, 52, 53, 54, 97 and 98 are identical to the corresponding 59.1 contact amino acids.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US94/01458

A. CLASSIFICATION OF SUBJECT MATTER

IPC(5) : C07K 7/00, 15/00, 7/64; G01N 33/53

US CL : 530/300, 329, 330, 331, 388.35, 403; 436/501

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 530/300, 329, 330, 331, 388.35, 403; 436/501; 424/89; 514/2

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS, DIALOG.

SEARCH TERMS: HIV, HTLV, MOLECULAR MODELING, V3, PND, PRINCIPAL NEUTRALIZING DOMAIN, RP152, RP142, CRYSTALLOGRAPHIC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO, A, 90/03984 (RUSCHE ET AL.) 19 APRIL 1990, SEE CLAIMS.	1-12
A	SCIENCE, VOLUME 249, ISSUED 24 AUGUST 1990, GREGORY LAROSA ET AL, "CONSERVED SEQUENCE AND STRUCTURAL ELEMENTS IN THE HIV-1 PRINCIPAL NEUTRALIZING DETERMINANT", PAGES 932-935. SEE ENTIRE DOCUMENT.	1-12
A	SCIENCE, VOLUME 251, ISSUED 15 FEBRUARY 1991, GREGORY LAROSA ET AL, "CONSERVED SEQUENCE AND STRUCTURAL ELEMENTS IN THE HIV-1 PRINCIPAL NEUTRALIZING DETERMINANT: CORRECTIONS AND CLARIFICATIONS", PAGE 811, SEE ENTIRE DOCUMENT.	1-12

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	*T	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be part of particular relevance	*X*	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y*	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*Z*	document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means		
P document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

17 March 1994

Date of mailing of the international search report

20 APR 1994

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US94/01458

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PROTEINS: STRUCTURE, FUNCTION AND GENETICS, VOLUME 14, ISSUED 1992, ENRICO A. STURA ET AL, "CRYSTALLIZATION, SEQUENCE, AND PRELIMINARY CRYSTALLOGRAPHIC DATA FOR AN ANTIPEPTIDE FAB 50.1 AND PEPTIDE COMPLEXES WITH THE PRINCIPAL NEUTRALIZING DETERMINANT OF HIV-1 GP120", PAGES 499-508, SEE ENTIRE DOCUMENT.	1-12
A	BIOPHYSICAL CHEMISTRY, VOLUME 29, NUMBER 3, ISSUED APRIL 1988, PIOTR ZIELENKIEWICZ ET AL, "METHODS OF MOLECULAR MODELLING OF PROTEIN-PROTEIN INTERACTIONS", PAGES 219-224, SEE ENTIRE DOCUMENT.	1-12
A	SCIENCE PROGRESS, VOLUME 75, ISSUED 1991, C.J. SUCKLING, "CHEMICAL APPROACHES TO THE DISCOVERY OF NEW DRUGS", PAGES 323-359, SEE ENTIRE DOCUMENT.	1-12

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